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## Contents

The Maynard Family of Apothecaries	Page 2
John Nicholson, 1685 The First Chemist and Druggist?	Page 7
The Linnean Society, two Bristol links	Page 8
Publications	Page 8

## Diary Dates

1988

Note: except where indicated otherwise the meetings are to be held at the Pharmaceutical Society, 1 Lambeth High Street, London.

March 24

11th Annual Foundation Lecture. Dr M.P. Earles and Dr J.G.L. Burnby, joint presentation on 'City, Science and Profession - the background to the Pereira-Bell correspondence, 1844-1853.

May 18

Joint meeting with the Pharmaceutical Society. Miss K. Arnold-Forster and Mr R.E.A. Drey 'Pharmacy Jars'.

April 22-24

Spring Conference, Stakis Paragon Hotel, Hull.

Provisional Programme

Friday April 22

6.00 pm	Reception at Guildhall (via Coach)
	Tour of Mayoral Offices and Silver
8.00 pm	Dinner at Hotel
	Welcome to Conference and to Hull

Saturday April 23

9.15 am	Mrs Val Wooff - History of Hull
10.00 am	Coffee
10.30 am	Dr Joyce Bellamy - Industrial Hull
11.15 am	Mr Stuart Reed - 300 years of Cod Liver Oil Industry

12 noon	Mr R.S. Harris - History of Reckitt & Colman
1.00 pm	Lunch
2.30 pm	Guided Coach Tour
	Humber Bridge, Wolds, Beverley Minster
	Tea - Beverley Arms Hotel
7.00 pm	Dinner at Hotel
	Followed by - Dr David Fleming, Keeper Hull City Museum

Sunday April 24

9.15 am	Annual General Meeting B.S.H.P.
9.45 am	Mr Roger Odd - Story of Local Branch
10.30 am	Coffee
11.00 am	Visit to Wilberforce Museum (via Coach)
	Two groups to visit Museum and Old Pharmacy
1.00 pm	Lunch at Hotel
2.30 pm	Optional visit to Town Docks Museum

Cost:

£65 per person sharing a twin or double room.

£72 per person in a single room.

## Sponsors

Foundation Lecture 1988

The Society is again indebted to E.R. Squibb & Sons Ltd for their continued support for the Foundation Lecture and the generous hospitality after the lecture. They have supported the Foundation Lecture since its inception.

Pharmaceutical Historian

For a number of members the *Pharmaceutical Historian* is their main contact with the Society and therefore the continuance of the publication is of major importance. Members will be pleased to know that Merrell Dow Pharmaceuticals Ltd through its managing director Mr T.R. Irwin FPS has agreed to renew the sponsorship of the *Pharmaceutical Historian* at the same level as in 1987.

# The Maynard Family of Apothecaries\*

by John Steane

The name of Maynard in connection with Pharmaceutical history may not be one that instantly springs to mind. Indeed the name may not mean anything to anyone and would perhaps have continued to mean little to anyone except for one known fact, viz. that a certain apothecary called Anthony Maynard and a certain Elizabeth Maynard both issued what are known as 17th Century Trade Tokens, though the research for this paper shows they were not husband and wife.

These tokens were almost all of a farthing value, often made of brass but sometimes copper alloy. Like normal currency, practically all were round in shape, but some were square – often with the punning illusion to square dealing – others were octagonal and a few heart shaped. Some 13,000 different issuers of tokens have been identified up and down the country with the largest proportion in and close to London. All imaginable types of trader, and some unimaginable, are to be found in the series including perhaps 150 who were, or may have been, apothecaries or those dealing with drugs. As for the Isle of Wight it had its share of issuers though apparently fewer per head of population than the national average. There are some 34 known issuers in seven of the island's fourteen parishes, with the majority in the capital town, Newport. Nineteen were by individuals plus the Corporation of the town. It is the identification of the Anthony and Elizabeth Maynard tokens as being those of apothecaries which has led to this paper. Anthony Maynard's token bears on one side his name and the

apothecaries' sign, Apollo, a serpent & a staff. On the other side, the place of issue plus his initials. It is interesting to note that it was usual for the issuer to have not only his own full name on the token but also the initials of both himself and his wife; hence we have here an "M" at the top for "Maynard" with "A" to the left and "E" to the right. This is often very helpful in determining the issuers and when the tokens were coined (*See illustration No. 1*).

Elizabeth Maynard's token bears her name, the place of issue (Newport) and the words "Ile of Wite". It also has the sole initials "E.M." for Elizabeth Maynard and, like the other, is undated, but does not contain any reference to Apothecaries or indeed to any other Guild (*See illustration No. 2*).

The Maynard family saga stretches from almost the first year of the 17th century to almost the last, during which period England saw enormous political, religious, but especially constitutional struggles.

The place where the Maynards lived was not so ordinary, for it was the refuge in the Maynards' time of the unfortunate King Charles I and the last place where he enjoyed any freedom before being transferred to London for his trial and execution. But the Maynards did lead ordinary lives and were a fairly ordinary family producing a handful of apothecaries over successive generations who played their part in local affairs.

The family history for this report starts with one Anthony Maynard who first appears in local records in 1605 where the registers of Carisbrooke Parish Church refer to a burial of one Elizabeth Maynard "Wife of Anthony".<sup>1</sup> These two names become a problem as the years progress for there were at least six Anthony Maynards and ten Elizabeth Maynards in the family during the next 69 years. This first Anthony, who became known as Anthony Maynard "The Senior" in his own lifetime was born in "New Sarum, Wiltshire" – a fact we learn over half a century later when

\*Abstract from a paper given at the Spring Conference, Isle of Wight, 1987

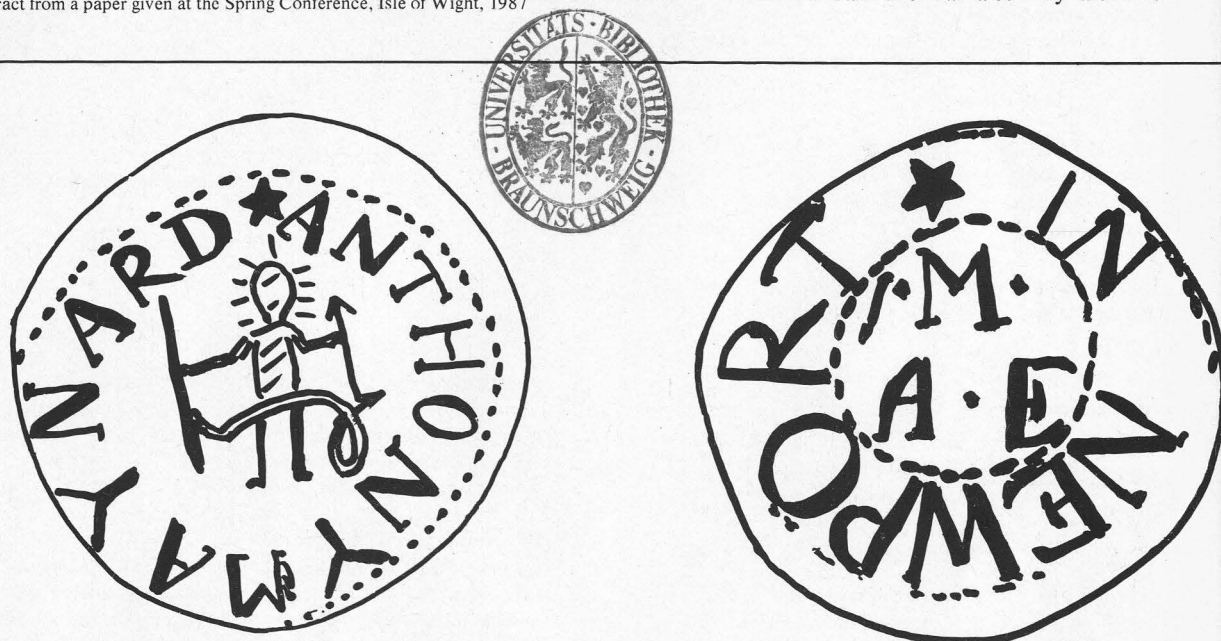


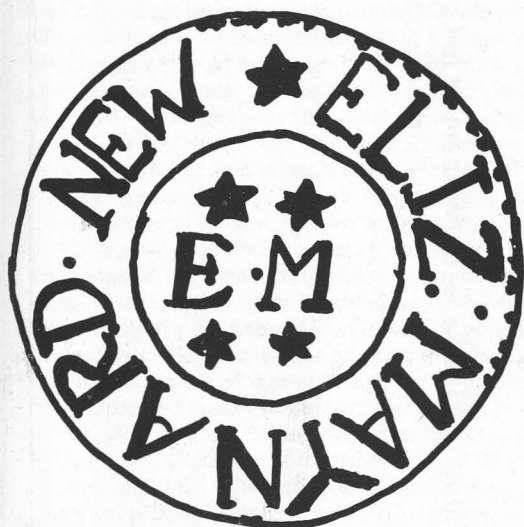
Figure 1.  
Farthing token of Anthony Maynard (the "Younger"), apothecary, Newport, Isle of Wight c1650-1660

his will was read.<sup>2</sup> His date of birth and early years are as yet unknown, but this earliest extant entry, together with some later facts, indicate that this wife had borne him a daughter, Elizabeth, who ultimately married Thomas Rydge<sup>3</sup>, a member of the Corporation whose family provided the borough's Mayor in 1607, and several other of his relatives being at different times members of the Corporation. Anthony "The Senior" must have been by that time already acting as an apothecary for he was soon taking part in civic activities. Within three months of his wife's burial he remarried<sup>4</sup>, this time Hellena, or Ellinor, Rider who was to be his companion for the next 52 years, probably an unusual achievement for those days when many individuals did not reach 50 years of age. Anthony and Ellinor had 8 children, 2 named Anthony, the first died in infancy. Of old Anthony's 5 sons, two of them married Elizabeths including his eldest son William, born 1607, who was presumably trained by his father for he too trained as an apothecary in Newport. Another of the 5 sons was John for whom there is some evidence of being an apothecary who, before his death in 1647 aged 32, married Elizabeth Kent, the daughter of a local inn-keeper. Of their children, Anthony "The Younger" as he became known, born in 1637, also became an apothecary. Thus, each of those three generations produced at least one apothecary. Anthony "the Younger" clearly found the name Elizabeth irresistible too, for he married Elizabeth Clarke in 1656. One of the witnesses to the event was old Anthony the Senior, who, after crossing out someone else's name, proudly signs the register "Anthony Maynard, his grandfather"<sup>5</sup>. Anthony the Younger and Elizabeth Clarke had a number of children including – yes – several called Elizabeth and one called Anthony, who in turn became an apothecary. he was born in 1661, was apprenticed in the City, married Dorothy Locke of Gosport, but predeceased his parents by dying in 1689 at the age of only 28. he is distinguished from his relatives of the same

name by being known as "Anthony of London" or "Anthony the Junior". He was therefore, the fourth successive generation of apothecaries but sadly the last.

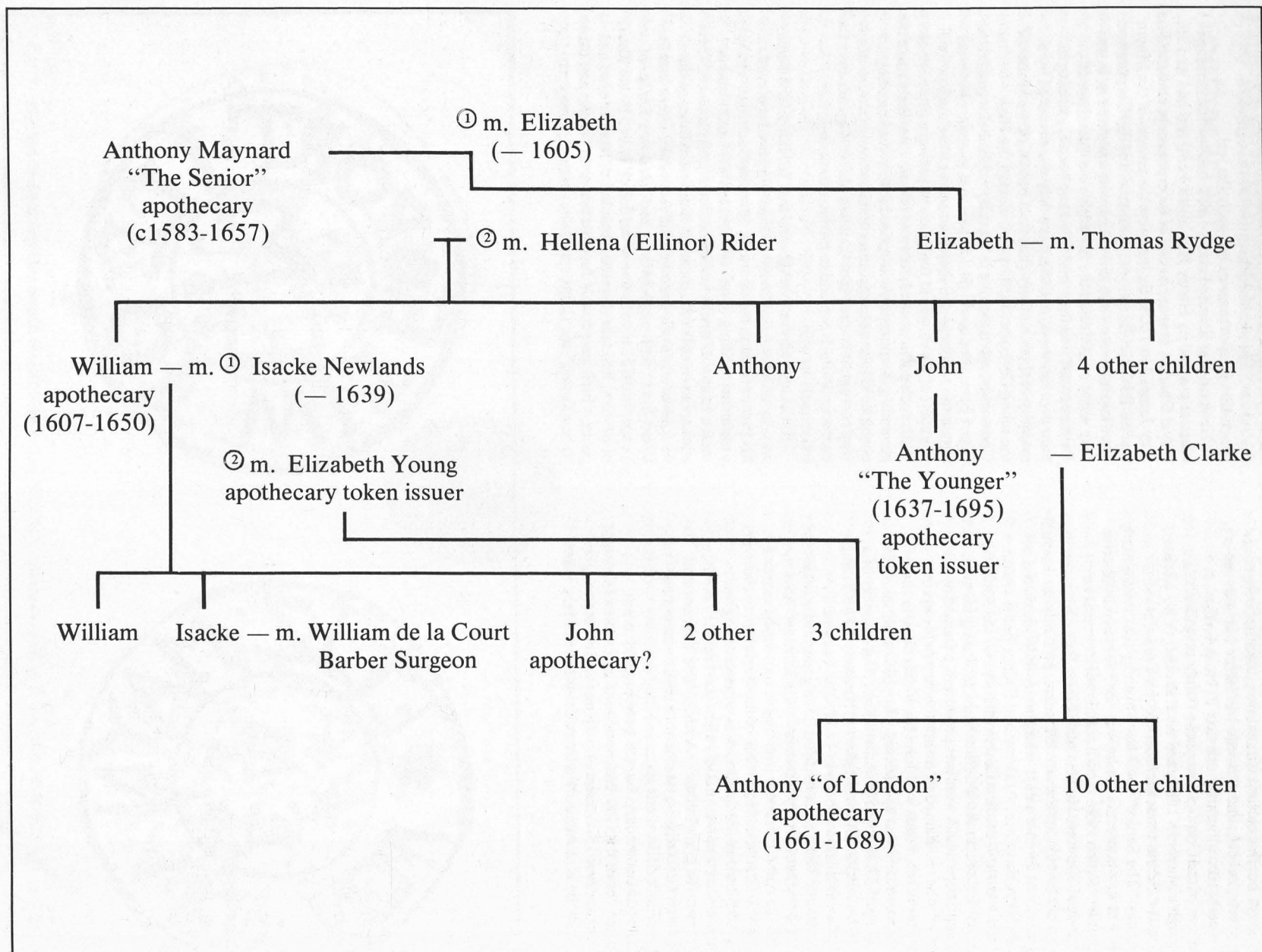
Newport was founded about 1120, had its first Borough Charter granted by Henry II in about 1180 and had its 12th Royal Charter, granted as one of Incorporation, conferred on it by James I in 1608. By that time the powers of the Mayor and his 23 Chief Burgesses, as members of the Corporation were known, were wide and mainly without redress. It was they alone who elected the Borough's two members of Parliament; it was they who filled any vacancy arising in their own numbers, and therefore only one favoured by a majority of them had any chance of becoming a member of the ruling Corporation; they also elected the High Constables, a prerogative in most boroughs belonging to the Court Leet; they could decide who was to open a business within the borough; and they themselves were exempt from payment of wharfages at the Quay or paying petty customs. With such powers – and they had others – membership of the governing Corporation was indeed a very commanding position. Whilst not suggesting that its members were in any way corrupt, it is clear that they had absolute power over the property of the Town and to a large extent over the inhabitants as well.

It was against that background that Anthony "the Senior" was, by at least April 1610<sup>6</sup> a Chief Burgess. he played fully his part in running the borough, attending meetings regularly over an astonishing length of time, some 47 years and up until a matter of weeks before his death in August 1657. He appears to have been a member at different times of the various courts in the borough, the Admiralty Court and the Court Leet<sup>7</sup>, and, when Mayor, had acted as a Justice of the Peace. In 1631 he was one of the 5 Jury called by the Court of Sewers, which comprised a number of local knights and gents, which gave to this Jury the power to "direct and cause to be affected" the Court's decision, in this instance, to



**Figure 2.**  
*Farthing token of Elizabeth Maynard, of Newport, Isle of Wight, widow of William Maynard, apothecary. c1650's*







prevent the removal of beach stone and gravel from an area of East Wight where the sea regularly broke through, and to fine offenders caught so doing<sup>8</sup>. Anthony's colleagues in seeing their instructions carried out included two other well known merchants from the area of Newport. Five years before that (1626)<sup>9</sup> he had been elected the Corporation's Mayor and nine years later (1635)<sup>9</sup> was elected once again to fill that office.

About that time Anthony's son William, then an apothecary was interested in becoming a Chief Burgess and achieved that status by 1640<sup>10</sup>, but it has not been possible to ascertain exactly when he was elected. Four years earlier, in January 1636, the newest Corporation member was Abraham Stallard, a Newport merchant and William's brother-in-law, Abraham having married old Anthony's daughter Joan in April 1634. William too played his part in accepting public duties for we find in a document<sup>11</sup> dated July 1st 1644 that he was one of those who had been appointed by an earlier Ordinance of Parliament establishing a Committee for the Isle of Wight which was to be extended for a further 6 months.

One of the Island's most respected local gentry and a declared Royalist, Sir John Oglander of Nunwell, celebrated for his copious notes of 17th Century Island life, confirms this Ordinance document for he wrote: "But we had here a thing called a Committee, which over-ruled Deputy Lieutenants and also Justices of the Peace, and of this we have brave men; Ringwood of Newport the Pedlar; *Maynard the Apothecary*; Matthews the Baker; Wavell and Legge, farmers and poor Baxter of Hurst Castle. These ruled the whole Island, and did whatsoever they thought good in their own eyes".<sup>12</sup>

William was not however to enjoy the good health of his father, for he died in 1650 aged 43. He had married in 1630, Isacke Newland, a member of a local family of merchants, one of whom was later instrumental in attempting to rescue Charles I from Carisbrooke Castle. She died in 1639 and four years later William had married Elizabeth (yes another!) Young who now survived him. It is thought that she continued his apothecary's business and if so, it is she who issued the trade token that is illustrated (*See illustration 2*). We know that at the time of its issue she was not married or another initial would have been present. In 1658, eight years after William's death, it is recorded that an Elizabeth Maynard – status not specified – married a local grocer, John Hooke. So the token was probably issued between 1650 and 1658. John Hooke also issued a trader's token and if his new wife was the apothecary's widow, then it is open to speculation as to whether the two businesses were combined or whether the grocer was in part an apothecary, for it is known that in the 17th Century some token-issuing grocers were indeed spicers and/or apothecaries. John Hooke's token illustrates the Arms of the Grocers' Company. Interestingly, this John Hooke has a greater claim to fame than that of issuing a token or being married into the Maynards; his younger brother was the famous Robert Hooke, Fellow of the Royal Society, its first Curator of Experiments, Colleague of Robert Boyle and Isaac Newton, inventor of numerous scientific instruments, including the pendulum watch which he developed in the year his brother married Elizabeth Maynard, and the writer of books of science. John Hooke, like so many of these inter-related

Newport tradesmen, was a Chief Burgess and was Mayor in 1668 and again in 1676<sup>13</sup>.

William's eldest daughter (by his first wife Isacke Newland) was also named Isacke. It is clear that people did mix in the same circles because the young Isacke married Mr William de la Court, barber-surgeon of Newport. He was, as far as can be determined, the only one in Newport at that time. The Registers record their marriage on June 7th 1654.<sup>14</sup> The same Registers note the baptism two months earlier, on April 16th 1654, of William "the reputed son of William de la Court".

Meanwhile, another Anthony Maynard – Anthony the Younger, son of John who had died in 1636 and grandson of old Anthony Senior, was probably being prepared for life as an apothecary. In 1658 he would have been 21, probably just old enough to have completed his apprenticeship, and if his Aunt Elizabeth was bowing out of the family and medicine as well by marrying John Hooke, it is highly probable that grandfather Anthony had set him up about that time in his own business. He was certainly the issuer of the other token (*See illustration No. 1*) and he continued in business in Newport until his death in 1695. He did not however, become a member of the Corporation nor does he seem to have taken any place in civic life, although members of his now large family and related families – cousins, uncles, in-laws and so on – did so, for example, the Stallards, the Newlands, the Hookes, the Ridges and the Hayles. The reason for this could have been political. Until the onset of the Civil Wars, local government was probably non-party. With the conflicting attitudes taken by individuals within families towards Parliament, religion and the Army, it is possible that by the time Anthony the Younger was old enough and ready enough to be elected to the Corporation, he was effectively precluded from it by the former Parliamentary activities of his uncle and grandfather. To emphasise the possibility, it is to be remembered that soon after the restoration of the Monarchy in 1660 the new King Charles II visited the island to reward those who had helped his ill-fated father, Charles I, and his causes some 12 years before. Amongst those honoured with an hereditary knighthood was William Oglander, son of Sir John who died in 1655, who had clashed with the Parliamentary supporters on the Corporation several times, and had suffered imprisonment and fines for his support of the King. Not every Cromwellian Chief Burgess found himself unable to take office after the Restoration; Moses Read, a vociferous and apparently fiery man, harangued the Parliamentary cause all through the 1640's and 50's particularly in the years 1641-2, 1647-8 and 1656-7 when he was Mayor, but upon Charles' triumphant return to the throne, Moses Read was one of the first of those recorded<sup>15</sup> to take the Oath of Allegiance to the Crown and succeeded in becoming Mayor again in 1661-62. None of the Maynards however, were in the Corporation after 1660. Old Anthony the Senior had continued his active membership for at least 47 years, his last recorded appearance at a meeting being on April 8th 1657, just two months after the death of his dear wife Ellinor and three and a half months before his own death. It is doubtful whether anyone else has ever given such prolonged service to the corporation of Newport.

Two or three times during the century the Corporation minutes record the "Burgesses' Oath". Included is the

clause: "You shall pay scott and lott within this Burrough as other Burgesses ought to doe"<sup>16</sup>. The Maynards seem to have obeyed this well, whether Chief Burgess or not. In 1637 we find both apothecaries, Anthony Senior and his son William paying 15/- each Ship Money Tax while his brother John paid 6/-<sup>17</sup>. In 1642 Anthony, William and John were all paying the Lay Subsidy in the Parish and twenty years later Anthony the Younger and his cousin John (one of William's children) were paying 5/- and 3/- respectively. Between the years 1664 and 1674 we find Anthony the Younger regularly paid his Hearth Tax on his considerable house in Holyrood Street, for at each return he paid 12/- on six hearths, while smaller amounts were paid on other Maynard properties<sup>18</sup>. Not all Chief Burgesses were so obliging, for it is recorded that in 1640 the Corporation informed "The Parliament House of the abuse of the Sheriff's Bailiff in taking away the Maior's gown for Shippe Money"<sup>19</sup>. The Sheriff concerned was the Royalist Sir John Oglander and the Mayor was Robert matthew, perhaps related to Matthews the Baker of the "Committee".

So Anthony the Younger who issued the token appears to have lived quietly pursuing his trade and private affairs and in the process amassing a small fortune for his name occasionally appears in contracts and legal documents such as in Wills as an Executor or witness. In 1697, two years after his death, his widow Elizabeth concluded renewal leases on their two properties in Holyrood Street<sup>20</sup>.

Their apothecary son Anthony of London, having died so early in life, did not have time to become established like his father, his father's uncle and his great-grandfather. His Will of 1689<sup>21</sup> is a simple affair leaving equal cash amounts of 20/- each to his parents, his father-in-law, his sister-in-law, his six brothers and sisters, a cousin and two friends to a total value of £14.0.0d with which to buy themselves commemorative rings in his memory. He left all the remainder of his possessions to his wife Dorothy.

His great-grandfather Anthony the Senior left quite a sizeable amount of wealth in 1657 considering that he had such a large number of descendants whom he seems to have supported so well during his life. His Will<sup>2</sup> is long and complicated with numerous deletions and alterations. This is perhaps because his wife Ellinor, married for 52 years and who naturally features in it prominently, died two weeks after he drew it up. At his death, only 2 or perhaps 3 of Anthony's nine children were still living, but between them they had nearly two dozen grandchildren, of whom 18 plus their parents, were beneficiaries. Anthony also left money for 20 poor, aged people of New Sarum, his place of birth; 20/-; another 4/- for the poor of Newport; £3 towards the paving of the Newport Beast Market, the work to be completed within two years; 1/- to the Sexton; 20/- for his kinsman William Hayles (one time bellringer and clerk to the Corporation); and long black coats "to cover the knees" at a price of 4/- per yard for the cloth, for six poor aged men to accompany his corpse to the burial, "two by two in decent manner". For this they afterwards had to listen to the sermon "sitted before the pulpit on a bench provided by the Sexton"; neither gloves nor Ribbons were to be worn<sup>2</sup>. The total value of cash bequests was, by his own calculation, more than £435.

His son William who had died 7 years earlier, had also left a considerable amount, particularly considering he was only aged 43 at death. To his eldest son he left £120 and the

"corner dwelling house with garden and backside at Newport on the N. side of High St and the East Side of St. James St. now occupied by William Percy the tailor"<sup>22</sup>. To his son John he left £60 including £30 still outstanding on his apprenticeship, plus the "dwelling, garden and backside at Newport on the South side of the High St. against the Market Place, after the death of my parents (ie Anthony and Ellinor) and now in their occupation"<sup>22</sup>. There were 5 other surviving children of whom 3 were to receive £140 each and 2 to have £100 each. To nieces and nephews and nephews including Anthony the Younger the token issuer, he left a total of £24 with the residue of his estate to his wife Elizabeth, the other token issuer. he, too, remembered the poor of Newport and also the Minister by monetary bequests. The complete value of his estate was £839 plus various properties. An interesting clause said that if his son William (bequeathed the tailor's house plus £120) and his (William's) wife Elizabeth disagree, then he is to be paid £12 p.a. provided he lives apart from her.

An even greater amount was left by Anthony the Younger in 1696. To his wife he left £200 in money, the bed "bedstead, bed-clothes and curtains thereof"<sup>23</sup> – which sounds like a magnificent four-poster. To his 5 surviving children sums of money from £5 to £200 each; to the poor of Newport 40/- and various other relations and friends such sums as 20/- and 40/- to a total in all of nearly £1000. In addition he left his "estate real and personal", deeds, shop books, evidences and writings, lands, goods and chattells" for disposal as his executors think fit. One is left wondering what became of these items which, had they survived, like the records from which this narrative has been prepared, would now have been of inestimable value.

It is clear that the 17th Century Maynard family were extremely successful in life and business. This could not have been due solely to having a monopoly of the available apothecary trade in the town, because they did not; there was, after all, the Juning family of Apothecaries in Newport for most of the two middle quarters of the 17th Century – but that's another story.

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# John Nicholson, 1685. The First Chemist and Druggist?

by F.H. Rawlings

John Nicholson on the 11th November 1685 was enrolled as a Burgess of Bristol by marrying the daughter of a Bristol Freeman. This gave him the freedom to practise in Bristol his chosen occupation as a chemist. The more usual route to the Freedom was by serving a seven year apprenticeship to a Bristol Burgess.

The Burgess Book records: "John Nicholson Chimis, is admitted into the liberties of this Citie for that he marries Ruth Hester daughter of John Machen Draper, a freeman & hath taken the oath of Allegiance."

It is not known how he obtained his experience – there is no entry for him as an apprentice in the Apprentice Books. The earliest St Thomas's Parish Rate Book dated 1704 indicates he had a business in Redcliffe Street which he occupied until his death in 1713 or 14. Additionally he apparently had corner premises in nearby St Thomas's Lane. This must have been his factory, the books list the premises variously as a colour, colouring or work house with a stable.

St Thomas's Parish consisted of Redcliffe, St Thomas and Tucker Streets with their associated lanes. It is on the periphery of Temple Parish the centre of the cloth weaving and finishing industry for which Bristol was famous, between 1696 and 1734 textile workers in the parish increased from 34% to 50% of the working population.

During the 17th Century the indigenous vegetable dyes were replaced by dye woods such as logwood, Brazil wood and fustic. Logwood, *Haematoxylum BPC 1934* is the heartwood of *Haematoxylon campechianum* Linn, when chipped or powdered, with or without fermentation and treated with alkalies gives a range of colours from deep violet through blue to black dyes. It is known that logwood and Brazil wood were imported into Bristol from the West Indies during the 17th and 18th Centuries.

This and the colour/work house with a stable suggests that John Nicholson was manufacturing dyes for the weavers using a horse driven edge runner mill. It must have been a lucrative business because after his death his widow continued the business in these premises with her son Francis until her death in 1723 or 24. Meanwhile, in 1716, she disposed of the 'shop' in Redcliffe Street to Charles Thurlby, the Nicholson apprentice of 1695 who became a Burgess in 1703 as an apothecary.

The Parish of St Thomas was then (1704-1714) the medical heartland of Bristol. In Redcliffe Street were Edmond Tucker, Edward Bright, Rice Charlton (from 1712) as apothecaries with Thomas Page a surgeon. In Thomas Street were Alexander Caduggan and Charles Gresley, apothecaries. It was later in the century, after the founding of the Bristol Infirmary in 1735 and the Bristol Dispensary in 1775 that the centre of medical practice moved to their close proximity in St James's Parish.

That John set up in business in opposition to the apothecaries is confirmed by the series of apprentices that he

took, all being bound for the customary seven years. This being one of the privileges of being a Burgess.

One was James Jennings apprenticed on 19th September 1693, who became a Burgess as an apothecary on 28th October 1705.

On the same date in 1693 John Nicholson took a second apprentice John Kerwood (or Kirwood) whose father, Richard, is described as a pharmacopol (ie. apothecary), deceased of Bristol. John had been apprenticed to his father on 13th June 1692, but he was still required to be bound for seven years.

In both these entries John Nicholson is described as a druggist and chymist, which is the earliest such local record.

On the 9th August 1695, John Nicholson is described as druggist, cymist and pharmacopol when he took another apprentice, Charles Thurlby who was made a Burgess on the 19th March 1702/3 as an apothecary, and he took over the Nicholson practice on the death of John.

The next apprentice, Henry Ockold was registered on the 31st August 1699, his father, Arnold was a clergyman of Fyfield, Nicholson now being chymist, druggist and pharmacopol.

Four years later on the 9th December 1703 Edward Durban whose father Edward was a cordwainer of Bristol, was apprenticed to John Nicholson, now a druggist and pharmacopol.

The next apprentice was his son Francis on the 24th June 1707 when his father is described as a druggist. He became a Burgess on the 15th December 1714, the record then notes that his father is deceased.

Edward Rushcombe became the next apprentice on the 25th February 1707/8, when John Nicholson was described as a pharmacopolo only. Edward became a Burgess in 1727 as an apothecary.

On the 11th October 1710 John took George Jones from Usk, Monmouthshire as an apprentice, John again is a pharmacopol.

John Nicholson died in 1714. However, a further apprentice Edward Dunn was taken by his widow Hester, described in the apprentice record as widow of Robert John, Druggist & Kemist. It also records that a £50 apprenticeship fee was paid.

Edward Dunn was apprenticed on the 10th December 1714, his father Philipp was a gent of Wiggmore, Herefordshire. he became a Burgess on the 24th August 1722 as a druggest and kemist, the first such Burgess record. he must have commenced practice immediately because he is described as a chemist when he took an apprentice Henry Deyman on the 11th September 1722.

After the death of Hester Nicholson in 1723 the business was in the hands of Executors then Edward Rushcombe, their apprentice of 1708 took over the 'factory' in 1725 which he continued to occupy until 1730, after which it ceased to be used for pharmaceutical business.

It is remarkable that an apparently untrained person was able to storm the bastion of apothecary professional practice and not only be accepted but be allowed to train apprentices as apothecaries. A possible explanation could be that if John, as indicated above, used his work house for milling dye woods it is very probable that he also powdered vegetable drugs such as Jesuit's Bark – Cinchona which had been



introduced to Europe in the 1640s. He could then have been wholesaling his products to the practising apothecaries.

Maybe this is why in 1725 Nicholas Lodge used premises previously used by Thomas Page, surgeon, for his Wholesale Apothecary and Druggist business in Redcliffe Street. In 1736 this was taken over by his apprentice Samuel Smith who continued there until about 1760.

Two questions arise:

Was John Nicholson the founder of the wholesale chemist and druggist trade in Redcliffe Street, Bristol?

Is there a record anywhere earlier than 1693 of a chemist and druggist?

## The Linnean Society, two Bristol links.

by F.H. Rawlings

The bicentenary of the Linnean Society of London is an appropriate occasion to record two Bristol apothecary apprentices who became members of the Society.

### John Ford

Nothing is known of his education or family other than his brother James was a surgeon to Bristol Infirmary 1743-1759. John was apprenticed to Samuel Stone the apothecary at the Bristol Infirmary on 1st March 1744 for seven years. He then went to London to complete his studies.

On the resignation of his brother from the Infirmary in 1759 he competed with Abraham Ludlow and William Barrat for the Infirmary post and won the position on the 12th June 1759, which he retained until 1775. Then, being honoured with the offer of a Degree in Physic by the Archbishop of Canterbury, he resigned from the Infirmary and ceased to practise as a surgeon, becoming a physician and man midwife.

In 1783 John was asked by his brother to succeed him, in his London practice. He did so and took up residence in Old Bond Street, later moving to Great Ormond Street. On the resignation of James, Doctor John was honoured to be nominated as 'Accoucher to Her Majesty', Queen Charlotte and attended her at the birth of Amelia, the fifteenth child of George III in 1783. After becoming Licentiate of the College of Physicians on 26th September 1787 he styled himself "Physician Accoucher".

From early days he pursued his study of Botany in an orderly fashion, he was also well informed in general science and literature. He was one of the founder members of the Linnean Society.

### James Rawlins Johnson.

He was indentured in 1803 to Mr Joseph Maurice, apothecary, St Michael's Hill, Bristol. He went to Bath in 1808 to study the practice in the City Dispensary and Asylum becoming a pupil to Richard Smith, Surgeon in 1809. After attending medical lectures in Bristol he became a physician's pupil at St George's Hospital.

His studies in Edinburgh in 1811 were interrupted by ill health. These he resumed in 1812 and was made a Fellow of the Linnean Society and a member extraordinary of the Royal Medical Society. Publishing his inaugural Dissertation '*De Hirudine*' in 1814 he was granted his M.D.

He commenced practise in Redcliffe Hill, Bristol in 1815 and in January 1816 published '*A Treatise on the Medical Leech*', including its medical and natural history, with a description of its anatomical structure, also remarks on the diseases, preservation and management of Leeches, with two engraved plates". He dedicated the work to Sir Joseph Banks, President of the Royal Society and on 26th June 1817 was chosen Fellow of the Royal Society because of his work on Leeches.

On 27th January 1832 at a meeting of the Royal Institute he announced the discovery of a new genus of Animal the Planariae.

He published a number of papers and articles on various members of the Leech family.

The source for most of the above information was Richard Smith in his Bristol Infirmary Memoirs.

## Publications

### A Selective Index to Siberian, Far Eastern and Central Asian Materia Medica

John H Appleby. Wellcome Unit for the History of Medicine, Oxford. Research Publications No VIII. 48pp. £4.50 or \$8.00.

The published intention of this series is to make available "inexpensive.... bibliographical, documentary and research aids in fields relating to medicine", and the author has successfully achieved that intention and at the same time produced a fascinating text of more general interest than the title might imply.

In addition to listing the references and bibliography (from Pliny to space travel), are "monographs" giving a broad historical outline of the introduction and use of a number of therapeutic agents. These provide the reader with concise and readable information on a wide variety of substances and at the same time provide guidance for more extensive reading.

### Book Received

A Brief History of Pharmacy, with some observations on Alchemy. A.G.M Madge. Marshall Publications, Saltburn Road, St Budeaux, Plymouth. 14pp. £2.00.

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## Contents

Officers	Page 1
<b>Foundation Lecture 1988</b>	
“My Dear Mr Bell” The Background	Page 2
The Professionalisation of British Pharmacy	Page 3
<b>Spring Conference Hull</b>	
History of Reckitt & Colman Pharmaceutical Division	Page 5
300 Years of Cod Liver Oil	Page 6
The Hull Pharmacists’ Association (Part 1)	Page 7

### The Pereira Letters

The illustrated bound paperback “My Dear Mr Bell” Letters from Dr. Jonathon Pereira to Mr Jacob Bell, London 1844 to 1853, edited by C.P. Cloughly, Dr. J.G.L. Burnby and Dr. M.P. Earles, is available from Dr. L. Howden, 36 York Place, Edinburgh EH1 3HU price £4.50 (by post £5).

## Diary Dates

### September 16

#### British Pharmaceutical Conference, Aberdeen.

History of Pharmacy Session.  
University of Aberdeen, Physics Building 2.00 pm.  
Mr A. Lloyd, executive director of the Pharmaceutical Society of Australia (Victoria Branch); Registrar, Pharmacy Board of Victoria “Pharmacy in the Australian Colonies – the British Influence.”

### November 10

#### At PSGB, 1 Lambeth High Street, London.

Mr Michael Clarke “History of Suicide by Poisoning.”

### Foundation Lecture 1988

Although there were some unusual features of the Foundation Lecture in that there were two lecturers (see p. 2) and the theme was the background to the Society’s collaborative publication “My Dear Mr Bell”.

The basic and essential continuity with previous lectures was the sponsorship of the Squibb organisation whose generosity as hosts for the occasion was greatly appreciated by the members present.

### Blue Days

Since Wednesday is a Blue Day and therefore attracts cheaper British Rail fares the committee is to consider holding some of the London evening meetings on that day. Comments from members would be appreciated. Please address them to the Secretary, BSHP, York Place, Edinburgh. At the same time why not suggest a topic for a meeting?

### Spring Conference 1988

Although perhaps a little breathless at the end of the weekend those who were at Hull thoroughly enjoyed themselves and many of them revised their preconceived ideas of the port. The committee owe a great debt to Roger Odd the member “on the spot” who masterminded the arrangements as well as contributing an interesting paper. Others to whom our thanks are due include the local authority and the Deputy Lord Mayor, Mrs Marjorie Smelt, those who presented the variety of papers and the local museum staff who displayed such enthusiasm and boundless energy. In addition there was the outstanding support of the sponsors:- Approved Prescription Services Ltd, Reckitt & Colman, Sanofi UK Ltd and Seven Seas Health Care Ltd.

### Officers

At the annual general meeting Miss D.A. Hutton and Mr A.G.M. Madge were re elected to serve on the committee. Mr W.A. Jackson and Mr R.W. Odd filled the remaining vacancies. At the May committee it was agreed that Mr J. Steane and Mr T.D. Turner should continue as president and vice president respectively.

Prior to the evening meeting on May 18 a Special General Meeting of the Society approved the financial report for the year ending December 31 1987.

### Book Received

The Ledger of William Elmhirst, Surgeon and Apothecary, 1769-1773. Eric Sigsworth and Valerie Brady, Humberside College of Higher Education. 138pp. £5.00 including postage.

## "My Dear Mr Bell" – The Background

By Dr. M.P. Earles

The letters of Dr Jonathon Pereira to Mr Jacob Bell between 1844 and 1853, the year of Pereira's death reveal the friendly relationship between the two men and how they collaborated in the production of the *Pharmaceutical Journal*.

In the first letter dated August 10th, 1844 Pereira refers to a Scientific Committee for the study of natural history of substances used in medicine, and to Sir James Graham's Medical Reform Bill. Over the next nine years the letters deal with a variety of subjects: problems with the technique of inhalation of anaesthesia first introduced in 1846, the purity of London's water supply, the Great Exhibition of 1851, the problems with the School of Pharmacy and the passing of the first Pharmacy Act by a British Parliament and introduced by Jacob Bell.

Pharmaceutical science and the recognition of the Chemist and Druggist are the keynote subjects of the correspondence and the letters traversed in their journey from Pereira's home in Finsbury Square, North-East of St Paul's to Bell's house in Langham Place in the West-End.

### City

In 1844, in the seventh year of the reign of Queen Victoria, London with a population of over two million, was a port, a manufacturing town and the centre of the British Empire which had recently added New Zealand and Hong Kong to its dominions.

The people of London worked for long hours in poor conditions. They were only free to shop late in the day and at the weekends and this meant that markets and shops were open late on seven days of the week. Shops were small and dark and conditions of work poor. In 1839 a group of assistants of druggists and apothecaries complained of long hours, close confinement and want of recreation. They argued that while they were labouring to provide for the health of others they were sacrificing their own.

Conditions were worst in the London slums which, in the words of Dickens, 'bred a crowd of foul existence that crawls in and out of gaps in wall and boards: and coils itself to sleep in maggot numbers ...' Such a slum was St Giles situated adjacent to where Tottenham Court Road crosses Oxford Street – just a short walk from Bloomsbury Square where the Pharmaceutical Society established its headquarters. These slums were the source of many of the epidemics in London. There were regular outbreaks of typhoid fever, typhus fever, scarlet fever, small pox and diphtheria. In the period under discussion another disease was added – asiatic cholera. In November 1848 Jacob Bell in a Letter in the *Pharmaceutical Journal* observed that a "general alarm prevails" concerning another outbreak of cholera. It came in the summer of 1849. The epidemic was variously attributed to a fungus affecting the food and water, noxious effluvia from the open sewers and an ozone deficiency which allowed an increase in the pestilential miasma. It was at that time, however that John Snow first identified the disease with the supply of drinking water. In 1842 Edwin Chadwick's *Report on the Sanitary Conditions of the Labouring Classes* had

attributed earlier outbreaks of cholera to poor drainage and inadequate water supply. Snow's work turned attention to the purity of the drinking water as the letters passing between Pereira and Bell clearly show. Unfortunately the private water companies continued to draw water from the polluted areas of the Thames making another outbreak of cholera inevitable.

To turn to more cheerful matters, the pleasures of Londoners in Bell's day were many and varied. In May 1848 Pereira writes to Bell that he has been on Epsom Downs – to the Derby, one of the annual pleasures of Londoners. For many of these people it was a time when they believed that things would improve and the idea of progress through science and technology was made manifest in May 1851 with the opening of the Great Exhibition of the Works of All Nations. This extraordinary exhibition was located in Hyde Park and housed in the "Crystal Palace" the name given by *Punch* to the immense structure of iron and glass designed by Joseph Paxton to cover 18 acres of ground and enclose three million cubit feet of space. The Exhibition symbolised Britain's might as an industrial nation and London as a world centre of commerce. Jacob Bell had an Exhibitor's ticket and Pereira's letters indicate that he was there on at least four occasions. We may reasonably assume that on some, or perhaps on all, of these visits he visited the South Gallery where the products of the fine chemical industry were on display. This included the exhibit of drugs and pharmaceuticals devised by Pereira and Bell.

The catalogue of the Great Exhibition refers to progress made in the application of philosophic chemistry to the production of pharmaceutical preparations.

### Science

The decade before the opening of the Great Exhibition was important not only for pharmacy in Britain but also for chemistry. The contributions of British chemists earlier in the century, notably John Dalton and Humphrey Davy, had created a popular interest in the subject and a growing appreciation of its importance in the arts and manufactures. Very little was being done, however, to promote a systematic form of education in chemistry. Teaching in the medical schools and universities was by lectures and demonstrations and young men who wished to become practising chemists had to attach themselves to established workers or go abroad to study.

It was in the 1840s that chemistry first began to be taught as the basis of a professional pursuit in its own right. In February 1841 the Chemical Society of London was founded and in 1845 the Royal College of Chemistry opened with A.W. Hoffman, a former pupil of Liebig's, as a director. Practical laboratory instruction, already practised in the laboratory of the newly founded School of Pharmacy in Bloomsbury Square, became a major feature of chemical education.

There was a close association between the Chemical Society of London and the Pharmaceutical Society of Great Britain which were founded within weeks of one another. The list of Honorary Members of the Pharmaceutical Society included six members of the Council of the Chemical Society: Thomas Graham FRS, the President; William Brande FRS, John Daniell FRS, Richard Phillips FRS, Vice-Presidents; Arthur Aikin FRS, Treasurer and Thomas Clark MD. Jonathon Pereira, also an Honorary Member of the Pharmaceutical Society served on the Council of the



Chemical Society in 1847. In 1852 Theophilus Redwood became a secretary of the Chemical Society with Benjamin Brodie. Jacob Bell, who was a Fellow of the Chemical Society at the time of its Charter in 1848, was remembered by a contemporary for his contribution. In 1891, fifty years after the founding of the two societies, the Rt. Hon. Sir William Grove, formerly Professor of Experimental Philosophy at the London Institution, who abandoned science for the law and became a judge, said that he was greatly surprised to find that Bell was not included in the list of founders of the Chemical Society. Sir William remembered him as taking an active part in the Chemical Society and described as "a very able, gentlemanly, and agreeable man, and also a good chemist."

The founders of the Pharmaceutical Society placed considerable emphasis on the importance of chemistry. Redwood described pharmacy as a branch of the science. Charles Payne announced that a knowledge of the principles of chemistry lies at the very foundation of pharmaceutical education. In 1842 Jacob Bell wrote that 'The foundation of education in our school is CHEMISTRY' the word chemistry being printed in capital letters.

However it was not simply regarded as one of the subjects of pharmaceutical education. it was the "very foundation". Chemistry was said to be essential for the study of materia medica, and pointed out that pharmaceutical operations can neither be successfully practised nor understood without an acquaintance with the "ultimate and proximate elements of bodies, their affinities, and the laws relating to combination and decompositions, which constitute the fundamental principles of chemistry".

In the first volume of the *Pharmaceutical Journal* Jacob Bell contributed a series of articles on pharmacy in other countries where reference was made to greater achievement abroad and the recognition, statutory and financial, that pharmacy received from certain governments.

In the Address of the Council of the Pharmaceutical Society, circulated in July 1841, the emphasis was placed, not upon the very obvious relationship between pharmacy and medicine, but on the relationship between pharmacy and science. The art of pharmacy becomes 'our scientific art', pharmaceutical education will promote the advancement of science and the development of scientific acquirements will remove "our apparent deficiency as pharmacopoliasts when compared with other nations". Bell observed that "education and scientific knowledge will shield (Chemists and Druggists) from extraneous control and interference" and added "the scientific arrangements will become in great measure, our means of defence.

The scientific meetings of the Pharmaceutical Society were open to medical men and Bell believed that papers read at the meetings and subsequently published in the *Pharmaceutical Journal* would eliminate the prejudice of medical men by defining the province of the pharmaceutical chemist. At the same time this would act as a constraint upon pharmacists preventing them from interfering in medical practice.

Thus it was that Science in general and chemistry in particular were established as the foundation of the body of pharmaceutical knowledge, the definition of which was essential if pharmacy was to be recognised as an independent profession.

## Foundation Lecture 1988

# The Professionalisation of British Pharmacy

By Dr J.G.L. Burnby

In the 1840s, the period when Bell and Pereira corresponded, it cannot be said that pharmacy in Britain had reached professional status, yet developments were such that the time was ripe for it to do so. There was a growing need for specialist pharmaceutical practitioners. medicaments of greatly increased potency had been introduced during the previous twenty years, some of the alkaloids being already found in the *Pharmacopoeia Londinensis* of 1836. More exact dosage had now become essential which meant better tools for the job were needed, better weights and scales, better graduated measures.

Standardisation was beginning to exercise people's minds and the first elements of it are detectable in the 1836 *Pharmacopoeia*. With the advances in chemistry, changes in nomenclature had arisen which again were reflected in the pharmacopoeias of the day; examples of Lavoisier's nomenclature are to be found as early as the 1809 *London Pharmacopoeia*. There was however still considerable confusion in druggists' minds, as John Savory pointed out to the Select Parliamentary Committee of 1852.<sup>1</sup> Before he engaged any assistant he always subjected the man to a two hour examination, and had been shocked to find English applicants who were unaware that muriate of soda was the same substance, not only as chloride of sodium, but as common salt too. New techniques and new equipment were being brought into use, such as percolation, the all-metal suppository mould, and pill-machines.

The occupation of pharmacy now demanded a greater expertise, a longer and more intensive education, and a greater sense of responsibility towards the public. The need for adequate labelling, something which up to that date had been remarkably scanty, for poison bottles, and for the separate storage of poisons from other medicines was beginning to be accepted. There were even the first glimmerings that potentially dangerous and addictive drugs should not be sold *ad lib* and without adequate safeguards.

There is no more potent factor for forcing people into a cohesive body than a threat from without. In March 1813, four members of a group called the Associated Apothecaries, Messrs. Wilberforce, Calcraft, Whitbread and Rose brought in a Bill which contained a number of clauses which materially affected chemists & druggists. A standing committee of those engaged in pharmacy, formed in 1802 when the trade was much agitated about a new Stamp Act, was immediately convened to fight the new threat. The Committee was successful because it was agreed to expunge from the proposed Bill any references to compounding chemists & druggists. Notwithstanding the success, the committee had to go into action again in 1814 and the following year. Once again they were able to fend off any outside interference, and the famous Apothecaries Act of 1815 left the occupation of pharmacy untouched. All was relatively peaceful until 1841 when Mr Hawes, Mr Ewart and Mr Hutton introduced a Medical Reform Bill. At first this excited no interest amongst the pharmaceutical

practitioners but then Robert Farmar, George Baxter and George Walter Smith alerted them to certain dangers inherent in the Bill.

The first meeting was promptly held at Mr Farmar's house on 10 February 1841. Swift, strenuous action promptly ensued and the Bill was combatted with vigour, which undoubtedly helped Mr Hawes to decide to withdraw it. The Committee of 33 realised that they had only gained a breathing space, and that for the future the chemists & druggists must organise on a more permanent basis. There was no doubt that regulation of pharmacy would come in the not too distant future, and as they believed, with justice, that they were perfectly capable of self-government, it was far better for regulation to be imposed from within and not by an outside body. Clearly it was essential for the status of the chemist & druggist to be raised in society otherwise there was no safeguard against yet another take-over bid by the medical profession. Accordingly on 15 April 1841 following the resolution, "That for the purpose of protecting the permanent interests and increasing the respectability of the chemists & druggists an Association should now be formed", the Pharmaceutical Society of Great Britain was established.

Early in July the Council of 40 issued their first address to some 5,000 chemists & druggists in Great Britain in which they outlined the objectives of the Society:

- 1 The union of all members for the purpose of self-government and self-protection.
- 2 The establishment of a uniform system of education which would promote the advancement of science and the elevation of the profession of pharmacy.
- 3 That a restraint would be placed on the incompetent which would be to the benefit of the public.
- 4 The suffering of the unfortunate amongst them would be alleviated.<sup>2</sup>

The Council was of the opinion that these desirable objectives could be attained by education, examination and registration. There would then be beneficial results for both the public at large and the chemists & druggists in particular, and at the same time proof would be given to the medical profession that pharmacists were fit to exercise and retain their present privileges.

The first hurdle that had to be overcome was the demonstration to the public that the pharmaceutical practitioner had "a clear-cut, essential and socially important function for which he had to use his specialist training".<sup>3</sup> It is probable that chemists & druggists themselves did not become aware of being a distinct group of people until the enactment of the first Medicine Stamp Act on 11 July 1783. The law now now stated that "All Persons (except such as have served a regular Apprenticeship to any Surgeon, Apothecary, Druggist or Chymist, or shall have kept a Shop for the Space of three Years before the passing of this Act, for vending of Drugs or Medicines only, not being Drugs or Medicines sold by virtue of his Majesty's Letters Patent) uttering or vending Medicines in Great Britain, shall annually take out a Licence for that Purpose...." In addition a medicine tax was applied to "every Box, Packet, Bottle or Phial, or other Enclosure of any Medicine... which shall be uttered, vended, or sold by an Person taking out such a Licence..."<sup>4</sup> Subsequent Acts were to prove much more onerous and the chemists & druggists, sometimes in conjunction with the

apothecaries, sought to obtain amelioration from the worst aspects. In this they were at least partially successful, but perhaps more important was that they were now developing a corporate identity.

Initially most members of the young Pharmaceutical Society believed its chief function was to protect their interests. They did not wish to see their present boundaries encroached, nor did they wish to be subject to outside interference of any sort or from anybody. Fortunately a nucleus of the membership thought further ahead. The writers of the address from which we have already quoted took the opportunity of stating that, "Those among us who take a real interest in our scientific art rejoice at the opportunity now afforded of placing the 'trade' (sic) of a chemist & druggist on a professional footing." The Council was given the important task of "raising up a class of educated and qualified pharmacists capable of efficiently performing the duties required of them in every town throughout the country."<sup>5</sup>

This was no easy task, for as Theophilus Redwood was to write nearly 40 years later, "The majority of those who called themselves chemists & druggists had no just claim to the former of these appellations, nor could they in the full sense of the term be called pharmacists; they were dealers in drugs and chemicals just as grocers are dealers in tea, sugar and vinegar, without knowing anything of the real nature of the articles in which they dealt. It might be said of most of them that they rarely saw a physician's prescription, and therefore had little occasion for a knowledge of dispensing."<sup>6</sup> It was to become Jacob Bell's life-work, "the elevation of chemists & druggists to the highest rank of pharmaceutical chemists..."<sup>7</sup>

Jacob Bell saw a clear-cut division between pharmacy and medicine, he believed that the two professions should be separate – but of equal status. Counter-prescribing was extensive by the pharmacist, and this Bell did not object to provided it was kept within reasonable bounds for it certainly served a social need. The opposite hand was that not only were 90% of medical practitioners dispensing doctors, but many at this period had what the lay public called "a doctor's shop". And the unhappy truth for both professions was that customers and patients could not differentiate between them; externally they looked very similar, and their activities within were much the same.<sup>8</sup>

There were two groups of practitioners who menaced the Council's policy towards the professionalisation of pharmacy. The druggist/grocer type who had no interest in science or standards, and was solely concerned with the maximisation of his profits, and the medical practitioner in all but name who called himself a chemist & druggist in order to make use of the pharmaceutical loophole in the Act of 1815. He was a man of poor education, who was not a Licentiate of the Apothecaries' Society, and had no intention of becoming one. Equally, he was not a pharmacist. It was to the advantage of *both* professions that a defined line should be drawn between them, and then such scamps would be unable to play off one group against another.<sup>9</sup>

The Council of the Pharmaceutical Society believed that professionalisation could be brought about in two ways: The promotion of education, by opening a School of Pharmacy at Bloomsbury Square, by establishing a museum and a library, and by providing evening scientific

meetings where research was encouraged. The Society gained great status by setting up a laboratory where practical, full-time instruction was given in chemistry. Secondly, the Council believed in the powers of example. The leaders of the nascent profession should be seen to exercise the highest standards both technically and ethically.

In these ideas the reformers were helped by a new view slowly growing in Britain, the need to safeguard the public. There was an increasing awareness of the problems of contamination, pollution, substitution and adulteration.

There was a consistent if reluctant growth in the belief that some restrictive legislation was needed, that a new regulatory and supervisory body should be established. Membership of the Pharmaceutical Society began to fall drastically, many thinking that it was failing in its duty in not attempting to bring in a Pharmacy Bill.

This criticism was not entirely fair. Two draft Bills were placed before Annual general Meetings of the Society in 1847 and 1849 but even when consensus had been reached it proved impossible to find a Member of Parliament with sufficient interest in the subject to bring it before Parliament. The answer became obvious, pharmacy must provide its own Member, and this is just what was done in the person of Jacob Bell. Owing to the irregularity of his election as the Liberal Member for St. Albans, Bell had no time to waste and brought in a Pharmacy Bill as soon as he could.

The greatest stumbling block to the passage of the Bill in 1852 as first proposed by Bell were the twin gods of free-trade and "laissez-faire". It was only too easy to condemn any newly proposed Bill with the cry of "monopoly."

As Redwood has written, "it soon became evident that the Bill was not likely to pass the committee without considerable modification. The Bill's promoters were disappointed, but still it was felt that something was gained, although much less than has been looked for."

Indeed much had been gained. The title of "pharmaceutical chemist" now had legal protection, a register of such qualified men was to be established and maintained by the Society, and thus by implication the Society had received recognition of the academic standing of its examinations and teaching, of the desirability of its ideals for the nation. The first blow had been struck for the way forward.

#### References

- 1 Proceedings of the Select Committee on the Pharmacy Bill, 2 April 1852
- 2 J. Bell & T. Redwood, *Historical Sketch of the Progress of Pharmacy in Great Britain*, London, Pharm. Soc., 1880, pp. 109-10
- 3 J.K. Crellin, "Pharmaceutical History and its Sources in the Wellcome collection", *Med. Hist.* 1967, vol.xi, p.217
- 4 G. Griffenhagen, *Medicine Tax Stamps Worldwide*, Milwaukee, Amer. Topical Assocn., 1971, p.6.
- 5 Bell & Redwood, op.cit., p.160.
- 6 Ibid., p.163.
- 7 Ibid., p.147.
- 8 Select Committee meeting of 29 April 1852, witness George Webster M.D. He stated that the public "are perfectly ignorant of whether a man is a surgeon, physician or what he is." The Chairman (Bell) then asked him if this did not arise from the fact that there are frequently in the same street two shops, one being of a chemist, and one that of a medical practitioner, there being no distinction between the appearance of the two shops, and that the public go indiscriminately to the one and the other, not knowing the difference?"
- 9 Bell, during the course of the Committee hearings, made it quite plain that the Pharmaceutical Society wanted no medical men amongst its membership.

Spring Conference, Hull, 1988

## History of Reckitt & Colman Pharmaceutical Division

By R.S. Harris

The original Reckitt & Colman businesses were both largely concerned with the manufacture of starch and related products, but in their later development they tended to diverge, towards household products on the one hand and foods on the other. They were eventually typified in the eyes of the British public by their representative products, Reckitt's Blue and Colman's Mustard.

However, their activities continued to overlap in a number of areas and at about the turn of the century, after many years of continual competition, the two companies formed a joint trading agreement in Latin America which led eventually to a much more comprehensive arrangement, involving all the overseas interests of both companies. In 1953, a complete merger was achieved and 80 per cent of the Group's business is now in international markets.

The Pharmaceutical Division was developed as recently as 1971. However, the Reckitt & Colman interest in medicine is as old as the foundation of the business, because mustard, which Jeremiah Colman began to mill in 1884, had for centuries been a traditional treatment for a variety of ills, as a rubefacient in plaster and poultices, as well as in the form of a footbath ingredient, for colds and chills. Indeed, the mustard connection extends even further into the past because in 1903 J & J Colman acquired the London firm of Keen, Robinson which had been making mustard since 1742, long before Jeremiah Colman himself was born.

Isaac Reckitt, too, made an early entry into the field of medicinal substances. Arrowroot was a valued element in invalid diets, and in 1848 he introduced an imitation arrowroot as a by-product of his manufacture of wheat starch.

Neither company made any serious attempt to enter the pharmaceutical field until 1932, when Reckitt & Sons commenced marketing Dettol – which was developed for a completely novel, safe and non-caustic disinfectant to be called Disinfectol.

In the following year the Group acquired Chiswick Products, a London company already well-established in the manufacture and marketing of shoe and household polishes, both at home and overseas. The Group is now organised into three major operating divisions; Food, Pharmaceutical and Household/Toiletry products, with smaller less internationalised Divisions such as Colour and Fine Arts & Graphics.

Dettol had been conceived in 1929 as a safer successor to the crude and caustic carbolic-based antiseptics and disinfectants then in common use. It was developed as a marketable product in 1930, named in 1931, and introduced to the medical profession in 1932.

Dettol was not at first associated with its Reckitt origin. The Reckitt name had hitherto been associated only with 'popular' household products like starch, washing blue, black lead and metal polish, and it was imagined that Dettol might find it hard to live down such a known family connection with such unmedical relations. However, Dettol was an immediate success and gradually Reckitt's association with pharmaceuticals became known and accepted.



The next landmark in the Group's pharmaceutical history was the introduction of Disprin (soluble calcium aspirin) in 1948, after appreciable research and development work, disastrously interrupted by the bombing and total destruction of the Kingston-upon-Hull Laboratories in 1941.

Codis (now Soluble Aspirin with Codeine) was introduced in 1952 and, in 1955, was followed by Junior Disprin.

So far the Company's pharmaceutical activities had been confined to the marketing of simple, though novel, 'home' medicines, with appreciable medicinal backing. In 1960 Westminster Laboratories were acquired. The company had been selling Brooklax (laxative chocolate) and Bonomint (laxative chewing gum) since 1931, and had celebrated the inception of the National Health Service by introducing Senokot. Westminster Laboratories had also introduced Pripsen, an anthelmintic based on a mixture of piperazine and standardised senna, for the treatment of threadworm and roundworm.

Westminster provided the opportunity for developing an enlarged pharmaceutical group capable of marketing prescription medicines on a significant scale, and a third gastro-intestinal preparation, the antacid Alcin, was added to the range in 1962.

In 1964, new Research and Development Laboratories were opened in Kingston-upon-Hull.

Between 1970 and 1972 the Group was restructured and, as part of this process, the Pharmaceutical Division came into being in 1971. The new Division aimed to consolidate all the hitherto rather fragmented research and development, production and marketing operations into a closely-knit framework, and to form a clear pharmaceutical entity.

During that period the cold-relief preparation, Lem-Sip, was successfully launched as a home medicine. Equally successful was the introduction of Gaviscon, a prescription medicine and novel remedy for the distressing heartburn associated with gastric reflux and hiatus hernia.

The launch of Immobilon, a veterinary anaesthetic based on the compound etorphine and discovered and developed in the Research and Development Laboratories, was achieved. Etorphine, under the code name of M 99, had previously been successfully used as an immobilising agent for wild game in Southern Africa. Its performance is dramatic, though its commercial scope is understandably limited. Immobilon was an early yield from a long programme of laboratory work on new and improved analgesics that showed potential for human use and its two versions, for large and small animals, are now extensively used in veterinary practices throughout the UK and overseas.

In 1973 a joint company (Reckitt Labaz) was formed with the French pharmaceutical company, Labaz S.A. to develop certain of the latter's products in the UK and in a number of other countries. The first such product (sodium valproate), marketed on the Continent as Depakine) was introduced in 1974 under the name of Epilim. This is a very effective drug for the treatment of a wide range of epileptic conditions and it has been termed the first 'broad-spectrum' anticonvulsant.

Epilim proved to be so successful that the French partners chose to buy Reckitt & Colman's share of the joint company to establish Labaz/Sanofi as a 'stand alone' business, which has prospered from its base in Wythenshaw.

Also in 1973, the Group's pharmaceutical interests were again enlarged by the addition of Lloyds Pharmaceuticals, makers of a wide range of products including Bonjela (a topical treatment for mouth ulcers and similar conditions),

Timodine (a specialist ointment for treating certain kinds of dermatitis and Transvasin (an anti-rheumatic rubefacient rub).

In 1974 the Division's home medicines' range was further augmented by the Valderma line of skin care preparations, including Valpeda, Valpak and Valcrema from the previously acquired Dermal Health Laboratories.

### Research & Development

In any manufacturing industry, without research and novelty there can be no development. This is nowhere more true than in the world of pharmaceuticals.

Until the late 1950's, pharmaceutical product development was merely one activity of the laboratories of Reckitt & Sons at Kingston-upon-Hull, together with the development of new toiletries and new household products. In 1957 it was decided that medicinal products, now coming to be recognised as a key factor in the Group's future development, must be given special priority.

As a result, a joint research association was set up with J F Macfarlan and Company of Edinburgh.

In the early 1960's Reckitt & Sons established pharmaceutical laboratories at Kingston-upon-Hull, with a separate medicinal chemistry programme. This was supported by a biological research laboratory, which assumed responsibility for the pharmacological work required to support the joint research programme.

By 1963, the Kingston-upon-Hull Laboratories were able to take over all the work of the joint association. This became necessary when Macfarlan's (merged by this time with T & H Smith) were absorbed into the Glaxo Group.

One of the aims of the current research programme is the development of new compounds in the antidepressant and antidiabetic fields. These research programmes demand a significant investment in highly qualified staff. Around 133 scientists and technologists work in the Division's laboratories, of which 40 are at post-doctorate level.

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### Spring Conference, Hull, 1988

## 300 Years of Cod Liver Oil

Mr Stuart Reed's paper was a broad review of the beginnings and development of the acceptance of a "tremendously versatile product" that had been used for centuries.

The first clinical tests were carried out by Samuel Kay a physician at Manchester Infirmary from 1752 to 1784. He found it of value in the treatment of "bone diseases and rheumatism". Mr Reed pointed out the prevalence of rickets was widespread in England during the 18th century.

Reports of Dr Kay's work led to work on the Continent, where a German physician, Schenk did further research leading to the greater appreciation of the medicinal value of cod liver oil especially in cases of malnutrition and rickets.

By 1850 the oil was generally administered for controlling symptoms of pulmonary consumption. However it was not until 1918 that the anti-rackitic factors were discovered and fish oils were then subjected to extensive research. At the same time there was the development of proprietary preparations, a notable example was "Scotts Emulsion".

The early business in medicinal cod liver oil consisted of

imports from Norway but as the prophylactic and medicinal uses of the oils were becoming more widely appreciated the need for local production was recognised, leading to the formation of British Cod Liver Oil Producers (Hull) Ltd in June 1934, and the erection of a new plant at Marfleet. During the early 1930s trawlermen had experimented with boiling equipment at sea to extract oil from fish livers and by 1935 non freezing medicinal cod liver oil of pharmaceutical quality was "on stream" at Marfleet. A new British industry was born.

Dealing with the current situation Mr Reed said that the company was now the biggest user of soft gelatine capsules in Europe. It had been realised that competition from

synthetic vitamins A, D and C was likely to increase and therefore the company had concentrated its research on other aspects of fish oils, especially their anti-thrombotic properties.

Referring to claims that cod liver oil cures arthritis Mr Reed said there was a "Codfather" an American, Dale Alexander who claimed it did, in a number of published books and lectures! The company could not make such claims yet there was much supporting evidence in letters which continuously arrive in Hull from grateful individuals.

There was a tremendous excitement in the properties of cod liver oil it was probably the most interesting product on the chemists' shelves.

## Spring Conference, Hull, 1988

# The Hull Pharmacists Association (Part 1)

By Roger W. Odd

The Hull Pharmacists Association's Programme or Syllabus produced each year lists 81 different Presidents of the Association since it was founded in 1868.

In the first Hull Directory published in 1791 there recorded 5 M.D's, 13 Surgeons, 1 Surgeon & Apoth, 1 Apothecary and 11 Chemists & Druggists.

The Royal College of Surgeons and the Society of Apothecaries were very friendly and often worked together. They would often have premises open to the Public – similar to Chemists Shops. As the Population of Hull in 1791 was about 22,000 the 11 Chemists & Druggists each had nearly 2,000 potential customers. However they competed with the Apothecaries to some extent, until ultimately the Apothecaries having secured their position as legally qualified medical men by their Act of 1815 relinquished their shops to the Chemists and merged with the general body of Doctors. The last shop-keeping Medical man in Hull was a Dr. F.M. Foster M.R.C.S. L.Soc.Apoth. Chem. & Surgeon who retained his shop in Whitefriargate in Hull until his death in 1885.

The Apothecaries and Chemists thus came into conflict during this part of the 19th Century – and the Chemists were much harassed by the Medical Defence Association on the question of the legality of counter prescribing. In October 1854 a local Chemist Joseph Brownridge of Mill Street Hull was prosecuted for acting as an Apothecary without the necessary certificate. A Mrs Rutherford had taken her child aged 12 months to Joseph Brownridge (for what she thought was a cold in his teeth) who supplied medicine. After also visiting the child on two occasions, the child grew worse and died. After a long case before a jury, the Chemist was found guilty and fined the maximum penalty of twenty pounds.

The Chemists & Druggists frequently diversified their basic trade like B. Moxon of 22 Market Place who manufactured soda water – while others engaged themselves in the sale of tea, candles and dry salteries, wine & spirits and paraffin lamp oil.

Since Hull was an important port to the Continent and the main shipping line to Hamburg and Northern Europe in particular the leech trade was at its height in the first half of the 18th Century since Hamburg was the principal Continental exporting centre. The leeches were imported in

casks – half filled with clay and water or in baskets of wet moss or grass. John Hudson (connected with Ellerman-Wilson Shipping Line) of Waterworks Street in Hull and W.H. Hammond of Caroline Street in 1806, advertised that they were large importers. They kept their stock of thousands in large glass tanks of water – supplying wholesale druggists all over the Country.

In 1820 – there were between 20 and 30 Chemists and Druggists trading in Hull and by the late 1830's the number had risen to 51. At the 1841 Census – no fewer than 122 are recorded.

In 1841 the Pharmaceutical Society of Great Britain was established and included amongst its founder members the following 4 Hull Chemists:

James Baynes of 28 Waterworks Street – apprenticed to John Hudson;

William Broomhead of Prospect Street;

Henry Garton of 32 Whitefriargate;

John Lofthouse of 15 Market Place was appointed local secretary.

By 1842 local membership was 20 plus 12 Associates who were working with 7 Hull Chemists as trainees.

Included amongst these full members was William Hay who was a chemist in Salthouse Lane. He was a Chemist "who also studied Medicine and Extracted Teeth. He later specialised in the manufacture of essences, mineral waters and flour. His flour mill in Grosvenor Street was in use until fairly recently."

John Lofthouse was one of the founders of Lofthouse and Saltmer Ltd the Hull wholesale druggists. He was succeeded by James Lofthouse in the late 1840's and James Saltmer who joined the firm in the mid 1860's. The wholesale business was bought out in 1961 by Evans Medical whilst the retail premises were in existence to just before the last war – until the severe bombing in 1941 in Hull.

James Baynes had replaced John Lofthouse as Local Secretary – a position he held until 1863. he had been apprenticed in Bradford and came as assistant to James Hudson in Waterworks Street (now called Paragon Street) – whom he succeeded in 1836. He was regarded as the founder of the drug trade in Hull. He ultimately became the first president of the Hull Chemists Association and was a

Member of the Pharmaceutical Society's Council from 1872-76. (He died in 1886 – aged 74). His son (James Baynes Jnr) qualified as a Ph.C. in 1870 – but was more interested in chemistry – became Hull's First Public Analyst – carrying on work at the back of his father's shop. There he conducted chemistry classes for students in pharmacy. As City Analyst he conducted bacteriological examinations of water each month.

John L. Seaton came to Hull from Chatham after he had been admitted as a Member of the Pharmaceutical Society in 1847 – practising in Whitefriargate as a homeopathic chemist. He became interested in oil refining and transferred his premises to Bankside where this business is still undertaken today. He was very involved in Affairs of City becoming Mayor of Hull in 1873. he died in 1903 – aged 83.

Due to shortage of Dispensing work (which was being performed by the Physicians) J.C. Reinhardt of Market Place was compelled to seek customers by forceful Marketing Techniques and skilful advertising. He advertised his Genuine Castor Oil Pills, Rheumatic Mixture and his celebrated Anti-Cholera Mixture and was also an agent for a Sarsaparilla and Magnesin Aperient.

At the 1861 Census nearly 200 Chemists and Druggists were recorded in Hull and the number of Retail Shops (96) had doubled in twenty years.

With the majority of the Dispensing being undertaken by medical practitioners there was a move among British Chemists to form an organisation whose aim was the fostering of their own business interests – including the promotion of early and of Sunday closing. It was known as the *United Society of Chemists and Druggists* and was formed in 1861 – the admission fee for which was 5/-. In 1863 the G.M.C. sought the Sanction of Parliament to obtain control of the Chemists & Druggists – whereupon a large meeting of Hull Chemists in November 1863 resolved to form a branch of the United Society of Chemists & Druggists – to which 60 joined there and then. They later had monthly meetings and arranged scientific lectures. In March 1865 a large deputation from Hull – including its President Mr. T. Toogood went to the Houses of Parliament to urge opposition of the Bill organised by the physicians.

The local branches of the United Society of Chemists & Druggists and the Pharmaceutical Society established a good understanding during 1867, and unanimously supported the Pharmacy Bill – which ultimately became the Pharmacy Act of 1868. It made it unlawful for any person to sell poisons or use the title of Chemist and Druggist – and all future entrants had to pass examinations.

As a result of this Act the United Society of Chemists & Druggists in Hull died as an organisation but it was

replaced by the formation of the Hull Chemists Association in 1868.

The leaders in the earlier Society took on the role as the first officers of the Hull Chemists Association including its four founders:

Charles Bains Bell	of 11 Spring Bank
James Burn	of Market Place
Anthony Smith	of Queen Street (Wellington Street)
& William Staning	of Cogan Street

Among the early activities of the new Association in 1869 was the compilation of a uniform dispensing price list. Chemists were canvassed and 68 signed a statement indicating their willingness to observe the agreed prices.

An elaborate price list was printed and distributed – after which every chemist was canvassed and requested to append his signature to a promise to observe these agreed prices. In all 68 chemists signed out of a total of 97 chemists shops in Hull.

Included in the signatories were Pharmacists of note: Balk & Shepherdson, taken over by E. Ryley – 23 Lowgate. Samuel Gunnell of Chariot Street – famed for his special Gunnell Powders. He was also listed as a paint & colour manufacturer.

Walter Thomas Owbridge of Porter Street, near the main docks. His Cough-Mixture became very popular with deep-sea fishermen and sailors. He advertised his product – which he called a Lung Tonic – first locally & then nationally. Sales grew so rapidly that in 1893 he took further premises in Hessle Road to manufacture his product – and sold his shop in Porter Street. He was elected Sheriff of Hull in 1896. The premises were moved to Osborne Street – and although no longer in operation one can still see his name over the old warehouses!

Another major activity of the H.C.A. was the provision of education facilities for the assistants and apprentices of the profession. A circular dated 1869 informed all the chemists' assistants and apprentices that education facilities were being instituted by the Association. These related to a series of 26 'Pharmaceutical Evenings' under the direction of a W.A. Rudd Esq M.R.C.S., L.S.A. – a lecturer at the recently closed Hull Medical School (1831-1869). Subjects included chemistry, materia medica, grammatical rendering of prescriptions. Botany classes and even Latin classes were held regularly until the 1880's & 1890's. Half the fees were paid by the students and half by the H.C.A. Students were taught up to the requirements of the minor examination of the Pharmaceutical Society.

Membership of the H.C.A. fluctuated during its first 30 years. In 1870 about 27 chemists had joined with an annual subscription of 5/- but they represented less than one fifth of the total known to have businesses in the town of Hull.

(To be concluded)

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## Contents

Thomas N.R. Morson: An Eminent Chemist	Page 2
The Hull Pharmacists Association Part 2	Page 4
Pestle and Forceps: The Pharmaceutical Dentist after the 19th Century	Page 5
Three Offers	Page 8

### The Pereira Letters

The illustrated bound paperback "My Dear Mr Bell" Letters from Dr. Jonathon Pereira to Mr Jacob Bell, London 1844 to 1853, edited by C.P. Cloughly, Dr. J.G.L. Burnby and Dr. M.P. Earles, is available from Dr. L. Howden, 36 York Place, Edinburgh EH1 3HU price £4.50 (by post £5).

## Diary Dates

### September 16

**British Pharmaceutical Conference, Aberdeen.**

History of Pharmacy Session.

University of Aberdeen, Physics Building 2.00 pm.

Mr A. Lloyd, executive director of the Pharmaceutical Society of Australia (Victoria Branch); Registrar, Pharmacy Board of Victoria "Pharmacy in the Australian Colonies - the British Influence."

### November 10

**At PSGB, 1 Lambeth High Street, London.**

Mr Michael Clarke "History of Suicide by Poisoning."

### South Petherton to Helston

The "Auctioneer's Discovery" - part of a South Petherton shop (see *Pharmaceutical Historian*, September 87) has been removed and re-erected at Flambards Theme Park, Helston, Cornwall. The exhibit, the part of the shop and contents which were partitioned off in 1909 and not opened up until 1987, together with dust and cobwebs, is included in The Flambards Victorian Village, which already had an "apothecary's shop".

Flambards Park is situated near Culdrose Air Station off the main A3083 (A394) Lizard Road.

### On Tourist Trail

The pharmacy and stock donated by the late Charles Drummond to the Pharmaceutical Society's Scottish Headquarters, York Place, Edinburgh is to be publicised as a tourist attraction (see *Pharmaceutical Journal*, July 16 p. 88) if a "medical heritage trail" embodying other sites of medical interest proves feasible. Such a trial is being investigated for the Scottish Tourist Board.

The York Place museum is available to visitors (Mon to Fri 9am to 1pm and from 2pm to 5pm). Prior contact would ensure a guide is available (telephone Dr Lindsay Howden 031-556 4386).

### Congratulations

To **Miss D. Ann Hutton**, FR Pharm S, who has recently been made a member of the *Académie Internationale d'Histoire de la Pharmacie*. Miss Hutton, a member of the BSHP committee, was the President of the Society in 1978-79.

To **Dr J.G.L. Burnby** on her appointment to the Executive Committee of the Faculty of the History and Philosophy of Medicine and Pharmacy. Dr Burnby was President of BSHP from 1975-77, is a founder member of the Society and is currently a committee member.

### Book Received

A Concise History of Veterinary Medicine. D. Karasszon, Akadémiai Kiadó, H-1361 Budapest. P.O.B.36. English text, 458pp. £34.25.

1  
1848

# Thomas N.R. Morson: An Eminent Chemist

By A.F.P. Morson

My great great grandfather's portrait adorns the Council room of The Pharmaceutical Society of Great Britain. He was one of its founders, its president on two occasions and made a significant contribution to the establishment of pharmacy as a profession. He also founded an important chemical business.

He was the second child, born in 1799, of the marriage of Thomas Newborn Morson and his wife, Elizabeth which took place in 1795 at Stoke Dry in Rutland. They came to London and lived at Stratford-Le-Bow. Morson went to school at Stoke Newington and in 1814 was apprenticed (as early as the law allowed) to an ex-army surgeon, Charles Dunn at 65 Fleet Market, completing his apprenticeship by studying in Paris and returning in 1821 to start his business as a chemist and druggist before moving in 1824 to 19 Southampton Row, premises which he made into a famous pharmacy.

In 1810, Morson's father died and was buried opposite the Pharmaceutical Society's headquarters at St Mary's: in 1815 his master died and by 1818 his mother and sister had died. This is why he described himself as "alone in the world at an early age".

With such disaster, how was his education paid for, how did he afford to go to Paris and later to take over the dispensing side of Dunn's, later Morley's, shop?

His maternal great grandmother Newborn<sup>1</sup> (who was illiterate) was the tenant of a farm under the Earl of Exeter and she left her daughter the tenancy and a small legacy. His grandmother, originally Sarah Newborn, married Thomas Morson of Wilbarston and left her money not to her only son, who was a bankrupt, but to her daughter-in-law, Elizabeth. So Morson's mother held the purse, which paid for his education and apprenticeship. On her death, he inherited several hundred pounds. This paid the expense of going to Paris and probably for the retail side of Morley's business. I don't suppose Morley made a gift of it, even though it was in an increasingly undesirable area; Morley had his eyes on a good medical practice, he was successful and became Master of the Apothecaries Society.

In 1823, Morson married Charlotte Elizabeth Pegram and they lived over the shop, which facing east, probably provided a lovely view of St. Paul's. Charlotte's father, who was a merchant in Savoy Hill<sup>2</sup> and lived in St. Giles, died within a year. He left<sup>3</sup> her £500 which paid for the move to Bloomsbury, and no doubt equipped the much longed-for laboratory.

Morson travelled to Paris in September 1818. His diary<sup>4</sup> records that the was seasick in the Straits of Dover<sup>5</sup>, "but ate a good dinner later that night." He loved and enjoyed Paris. He and a Dr. Tupper searched for a "position" for him. This was found at Louis Antoine Planche's fine pharmacy. Planche<sup>6</sup> was an important man with many published papers to his credit. He gave Morson his board and lodging and 12s 6d. (62.5 pence) a month.

Morson thought that M. & Mme. Planche lived in a

miserable way, but he "became reconciled".

It is a great pity that Morson's diary ends almost as soon as he started work at Planche's pharmacy. We know that Planche must have taught him well and combined with his intense interest in chemistry Morson learned the processes and techniques he needed. Perhaps also, he learnt the business side for Planche ran a mineral water factory. Morson records that he met Berzelius, Thénard and Henry. In Paris at about that time were, Pereira, Ince and Bullock, all names to become famous in English pharmacy.

On his return to London, Morson set about putting his business on a firm foundation. Prescriptions would have been the basis of his business, but his trade included all the nostrums and patent medicines; in fact the whole range of products of an early 19th Century chemist and druggist. That he set about chemical manufacture at once is clear. We are lucky that a little scrap of paper only 3ins square has survived – his 1821 price list<sup>6</sup>. It shows he exploited his recently acquired skills. Eight alkaloids and their salts are listed. The most important are quinine sulphate and morphine, free of narcotine, and also its sulphate and acetate – the first time in Britain that such substances were made and offered for sale.

## Quinine Sulphate

The manufacture of quinine sulphate started at the *Pharmacie Centrale des Hôpitaux de Paris*.

Unfortunately, the records were destroyed in fires during the 1871 seige, so we cannot be precise as to dates and quantities except by inference from other sources, which suggest large scale manufacture by 1820. Fortunately, there is very firm evidence that Morson was manufacturing in 1821 soon after the French. He thus preceded manufacture in Germany, the Netherlands, Scotland and the United States.

In his paper in *The London Medical Repository*<sup>7</sup> for 1821, Morson says "I shall simply detail the most economic process for preparing quinine sulphate as given by Henry Fils, of the *Pharmacie Centrale*". He goes on to mention yields and prices, thus he was already manufacturing by July 1821. His product was used by Dr. Dickson who published in 1823<sup>8</sup> his clinical results in the *Edinburgh Medical and Surgical Review*. Dickson<sup>9</sup> became a naval surgeon and later became Inspector of Hospitals and Fleets in 1840 and he was knighted by King William. Thus Morson, early in his career, promoted his products through leading members of the medical profession.

Morson continued making quinine sulphate for many years though never on the scale of Howards, whose huge success led to sales in the 1850's well above £20,000 a year and in one year no less than £70,000's worth<sup>10</sup>.

In 1930, Wellcome held the Cinchona Tercentenary Exhibition but made no reference to Morson. *The Times* correspondent in reviewing<sup>11</sup> the exhibition gave him due recognition but was contradicted in a letter<sup>12</sup> from David Howard claiming pre-eminence for his wife's ancestor, Alexander Low of St. Aubin, Jersey. Howard later wrote to correct this date in a letter (23 Feb 1931) to L.W.G. Malcolm at the Wellcome Historical Medical Museum, but only by one year! This however, was also misleading: there is confusion here between manufacture and clinical use.

Abstract from a paper given on February 11 at the Pharmaceutical Society's Headquarters

Alexander Low was the son of a Scottish army surgeon stationed in Jersey. He studied with Lennaec in Paris and, for his doctoral thesis, wrote, about the clinical use of quinine sulphate, submitting it in 1822<sup>13</sup>. It is interesting in a number of ways, but there is no reference to manufacture. There are extant, several letters written by Alexander's brother. The first, from Liverpool on 8th March 1824, to Alexander in Jersey says he cannot sell the quinine sulphate having tried 20 shops: "It is little used here". He then asks if it "can be made whiter". So they did make quinine but not until 1824.

The second letter on 9th April says he has not yet seen Mr. Morson. However, on 27th April, James Low writes to his father: "I have disposed of your bark to Mr. Morson, 19oz for 35s an oz. Should you send any more, make it whiter: you will get 5s. more per oz for it" – indeed he would, for Morson's selling price was 40s. Clearly, Low had discovered that Morson was important in that market, but was this a case of Morson buying up inferior material to take it off the market?

In 1828 young Low turns up in Calcutta still trying to sell quinine. His efforts were even less successful. Pelletier, who discovered the substance and made it on a large scale (for instance sending it to Barcelona for treating an outbreak of yellow fever)<sup>14</sup> heard of his activities (from Morson?) and sent the large quantity of 2000oz to India with strict instructions that none should be returned. The price fell so low that poor James sank without trace and became a bank clerk.

Both Pelletier and Morson behaved with commercial flair. They showed good business intelligence and a suitable ruthlessness in face of second-rate competition.

### Morphine

The two important plants to western medicine at the start of the 19th Century were bark and poppy; cinchona and papaver. Professor Paterson<sup>15</sup> has pointed out that the large number of fever conditions treated with cinchona, led to the large scale preparation of quinine sulphate before morphine salts were used in quantity. There seems to have been some reluctance among physicians to use the pure alkaloid of opium. Morphine was available in Britain in 1821 and yet *The Lancet*<sup>16</sup> had to say in 1854 that it was preferable to prescribe the pure substance rather than laudanum.

The first reference in Britain to the sale of pure morphine, free of the stimulating alkaloid narcotine, is Morson's 1821 price list. Unfortunately there are no records of Morson's early purchases of opium. However, the ledgers<sup>17</sup> of his account at the Bank of England do suggest that by the 1840's he was processing a ton or more and in the 1850's at least double that quantity per year.

Macfarlan started manufacture in 1836 and T & H Smith a year later, thus creating the greatest centre for opiate alkaloid manufacture in Britain. Morson became a great authority on opium and its chemical processing. In the first year of The Pharmaceutical Society's existence, all the meetings were chaired by Allen or Payne – except one<sup>18</sup>. Thompson's paper on opium when the chairman was Morson; surely a recognition of his importance.

The only early records of Morson's sales are those to Allen & Hanbury when supplied them with morphine sulphate from 1827 until 1841.

In 1832 Dr. Dickson<sup>19</sup> wrote in the technical press,

extolling the virtues of morphine which he had used on sailors in the Plymouth Naval Hospital. Did Morson supply the medicine?, and was this an example of an early clinical trial?

Thus, Morson was the first in Britain and the first outside France to manufacture the two most important alkaloids of that time. The evidence proves the statement in the presidential address to the 1926 pharmaceutical conference, that Morson was the founder of the alkaloid industry. The president's name was Howard! Since Morson founded the alkaloid industry is there justification for saying that he therefore started the fine or medicinal chemical industry?

A good example of Morson's exploitation of new discoveries is his manufacture of creosote, The Kreas Sozo, flesh preserver. Discovered by Reichenbach in Germany in 1832, Morson was manufacturing by 1834, selling to Allen & Hanbury 32 ounces at 6/-d. an ounce. Literature references to creosote provide some insight into the thinking of physicians long ago. I have read of it being used for birth-marks, ringworm seasickness, as an expectorant; and for pneumonia as recently as 1913. Its dental use will be familiar to all of my age group. Morson's friend and family Doctor, Henry Shuckbrugh Roots, who did so much for St. Thomas' Medical School, used creosote on his patients from the first, reporting failure to cure consumption in 1834<sup>20</sup>.

Throughout his life, Morson enjoyed experimenting and working at the laboratory bench. In 1851, he built a laboratory in his house at Queen Square to which he moved on his son's marriage, Thomas junior and his French wife occupying the 19 Southampton Row apartment. He produced beautiful specimens of alkaloids and other chemicals for exhibition to his scientific friends, at The Pharmaceutical Society's meetings and, most successfully, for the Great Exhibition of 1851 and its successors in places all over the western world.

### Pharmaceutical Society

The need, indeed the necessity if pharmacy was to be recognised early on as a separate profession, to create a viable body of high standards was understood by all those who attended the famous inaugural meeting at the Crown & Anchor Tavern. We do not know if Morson had met Jacob Bell at any of the earlier informal gatherings. However, it is clear that the two men quickly recognised a shared objective and, probably, a realisation that they would perform complementary rôles. Bell's letters<sup>21</sup> to Morson reveal just such a close working relationship. That they were friends is confirmed by the gift by Bell of a small equestrian statue of Wellington sculpted by Count D'Orsay.

### Obituary

Morson presumably had a mild stroke in 1870 because his handwriting changes: he also retired from the Council of the Pharmaceutical Society, after which he told a friend that he thought he had not long to live and he is recorded as having had paralysis when he died on 3rd March 1874. He left behind him a successful business and one that was to thrive for another eighty years.

There are obituaries of Morson in the journals of all the learned societies<sup>22</sup> of which he was a member and in *The*



*Illustrated London News*, *The Annual Register*, in *Wards' Eminent Victorians*, and, most unusually, in *The Lancet*. Quite apart from his industrial achievements and his contribution to the creation of his profession, it is clear that he had a pleasant personality and a courteous manner. People wrote nice things about him when he was alive and also of his wife's ability as an hostess. Abraham (the famous Liverpool pharmacist) wrote of his "elegant hospitality".

*The Repertoire des Pharmaciens* published an obituary in April 1874: "English pharmacy has lost one of its most eminent representatives. He applied himself to pharmacy and above all to chemistry at a time when the English pharmacist was a chemist only in name. On his return to London, he was actively occupied in works of practical chemistry. He left his first shop and founded, in Southampton Row, a pharmacy of the first rank. He was one of the founders and one of the most influential members of that society of pharmacy which, born from private initiative has today an official existence similar to that of our schools of pharmacy. Morson, during a busy career became the friend of a large number of distinguished men with whom his scientific work and artistic tastes had put him into touch. All received cordial hospitality and among those who have known him, not one will forget the pleasant face and happy smile of the excellent Mr. Morson."

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- 16 *The Lancet* Analytical Commission, 1854 pp 167
- 17 Bank of England; T.N.R. Morson's Account 1841-74
- 18 *Pharmaceutical Journal*, Vol.2, pp 496.
- 19 *Edinburgh Medical & Surgical Review*, 8 Feb 1832
- 20 *The Lancet* 1834, pp 127 & 665.
- 21 Letters, Bell to Morson (personal Archive)
- 22 Pharmaceutical, Linnaean, Zoological, Royal Society of Arts (The Royal Institution did not publish obituaries)

## The Hull Pharmacists Association (Part 2)

By Roger W. Odd

During the 1870's the membership doubled – stimulated by a few issues of vital local concern to the Chemists. They reached a peak in 1876 – when 58 subscriptions were paid. However, the Association declined in membership after that date as members found the newly formed branch of the Chemist and Druggists Trade Association. Price cutting by local stores selling patent medicines had developed and the Hull Chemists Association complained to the manufacturers in 1879 that the retail chemists who were recommending their products, were now being severely penalised by this competition. The Hull Chemists convened a meeting in 1897. It was attended by Chemists from as far away as Goole to consider how to organise uniform prices, reasonable 'living-wage profits' and better co-operation between the chemists. As a result wholesalers were encouraged to withhold supplies from any person or firm selling below fixed selling prices agreed by the manufacturers, wholesalers and retailers. This proved successful and over the next few years price cutting was not mentioned again.

The Hull Chemists Association social activities at this time centred around Supper at the Cross Keys Hotel – at a cost of 4/- per head excluding wine, and day trips to interesting places in Yorkshire.

At the turn of this century the H.C.A.'s fortunes were at a low ebb – with small membership and poorly attended meetings. In 1905 only 24 members are recorded and in 1907 the Secretary reported that, on average only 8 of the 27 members attended meetings.

This lack of enthusiasm may have been due possibly to the

very long hours worked. An attempt to remedy that was made in 1906 when 24 of the Hull Chemists petitioned the Mayor of Hull to make a Closing Order under the Shops Act of 1904 for the compulsory closing of all shops at 8.00pm on Weekdays and 10.00pm on Saturdays.

The support amongst local chemists for a restriction of hours in 1906 was by no means unanimous and the response to the petition was insufficient to achieve a Compulsory Closing Order which required a two thirds acceptance by the trade. However, L.S. Selle continued his campaign and eventually in 1916 a closing order for 8.00pm on Weekdays with Thursday afternoon closing and 10.00pm on Saturdays came into operation. In the 1920's the hours of opening were further reduced to 7.30pm during the week with 1.00pm on Thursdays and 8.30pm on Saturdays. However with the inauguration of the National Health Insurance in 1913 – the "panel Chemists" had to re-open for evening dispensing duties.

It was not until World War II that the Insurance Committee agreed 6.00pm closures.

Membership of the Hull Chemists Association rose steadily during the early 1900's – stimulated by a reduction in the subscriptions to 2/6 and in 1910 there were 56 members. Regular social activities took place with Annual Suppers being held at the Grosvenor Hotel in Carr Lane.

In 1907 the Pharmaceutical Society invited the H.C.A. to participate in a Regional Organisation scheme to meet in Leeds with delegates from other Associations in Yorkshire and discuss matters of mutual interest.

In the mid 1920's the local branch of the Pharmaceutical Society amalgamated with the Hull Chemists Association. New rules were adopted in 1926 which widened membership of the Association to all members of the Society, Student Associates and Registered Chemists. In 1927 F.H. Palmer became the first pharmacist – *not* in retail business to be elected President of the Association. By 1930 when the Pharmaceutical Society provided funds to the Association in respect of branch members the combined membership of the Association and branch rose to 148. By 1939 this had risen to 230 and today the combined membership stands at 270 – of which half approximately are also members of the H.P.A. – a name changed in the last 10 years.

In 1873 the Pharmaceutical Society of Great Britain passed a motion at its A.G.M. to admit women to the membership of the Society. It was 40 years later that Muriel

Bolton became the first girl from Hull to qualify in 1911, after being apprenticed to E.H. Earle.

She became the First Lady President of H.P.A. in 1934, and after her death in 1937 the H.C.A. purchased its chain of office as a permanent memorial to her services for Pharmacy in Hull. There have been to-date 9 Lady Presidents. The chain of office (now a double chain) is still much in use today!

Hull Pharmacists can boast two Presidents of the P.S.G.B. – in Eric Brocklehurst in 1954 and Cyril Maplethorpe in 1963-4. In addition Eric Brocklehurst was Chairman of the N.P.U. (now N.P.A.) and Mr. F.J. Todd (formerly of Lofthouse and Saltmer Ltd) was President of the Pharm. Soc. of South Africa in 1925.

Founded in 1868 the Hull Chemists Association – which changed its name to the Hull Pharmacists Association about 10 years ago – is now 120 years old.

## Pestle & Forceps

### The Pharmaceutical Dentist after the 19th Century.

By Christine Hillam

The pharmaceutical dentist of the 19th century, is no stranger, special provision was made for him to enter his name on the first Dentists Register of 1879 if he had been in *bona fide* practice of dentistry at the time of the passing of the Dentists Act of 1878. Large numbers availed themselves of this clause, including a good 500 who were not even on the Chemists and Druggists Register. In fact, less than half the 5,300 names of the first Dentists Register were those of full time dentists, the rest being largely those of chemists and druggists whose last opportunity this was to register without a dental qualification and continue, or in some cases, start, to call themselves dentists. For many of these men, their practice of dentistry probably went no further than extraction. Since their emergence at the beginning of the century, they had gradually taken over from the specialised toothdrawer of an earlier age as the first port of call for ordinary people in search of the ultimate cure for toothache. However, it is clear that some pharmacists and chemists and druggists ventured into the realm of dentistry proper.

#### Treatment in the 18th and 19th Centuries

Some idea of the dentistry they practiced is to be had in the following advertisement from *Aris's Birmingham Gazette* dated 1773: 'Mr. Grimaldi, surgeon dentist, who is just arrived from London, and stays here till the end of July, takes this method of acquainting the nobility and gentry that he will perform his operations apertaining to the teeth. He separates the teeth, and if any are rotten, and give pain, he cures them immediately; draws teeth and stumps even if they are covered with the gums; with ease transplants teeth from one head to another, and makes them take root. He makes artificial teeth, which cannot be distinguished from real ones, from one to a whole set, without springs. He sets young children's teeth to right, and gives them uniformity. To prevent mistakes his terms are as following: advice, gratis; cleaning teeth, 10s.6d; filling a tooth with lead, 5s;

ditto with gold, 10s.6d; transplanting a tooth from one head to another, 3gns; artificial teeth which always keep their colour, each 10s.6d; his powder for cleaning and preserving the teeth, 3s.6d a box; his antiscorbutic water, 3s. the bottle.'

An earlier advertisement, placed in 1763 by Signor Ruspini, claims that he: 'cures the scurvy in the gums, first cleans the teeth from that corrosive, tartrous, gritty substance which hinders the gums from growing, infects the breath and is one of the principle causes of the scurvy. His dentifrice, which is free from any corrosive preparation, will restore the gums to their pristine state, will preserve the teeth, and render them perfectly white, will fasten those that are loose, and prevent them from further decay'.

Between them, these two advertisements, although dating from the 18th Century, typify most of the treatments on offer for the period. It is clear that the early dentist was no stranger to periodontics, restoration, prosthetics, oral surgery, orthodontics and the concept of preventive measures – precisely the concerns of his modern counterpart.

The other point demonstrated by these advertisements is the high cost of treatment. To have had one tooth filled with gold would have taken more than a week's wages for an agricultural labourer at the end of the 18th Century and the usual price for a full denture, 20gns, would have swallowed up an entire year's income. Clearly, dentistry was not for the masses but aimed at an extremely small sector of society.

#### Treatments performed

Although the role played by plaque in dental disease was unknown to them, these dentists laid great store by scaling and the removal of what they called 'tartar'.

Loose teeth might be fastened to firm ones with gold wire. When bone loss had progressed too far for even this expedient, then recourse was had to extraction. This was often advertised as 'painless', a surprise bearing in mind that anaesthesia was not introduced until the end of the

<sup>o</sup> Abstract from a paper given on May 21, 1987

1840s, and then to a very limited extent. It is generally considered that the incidence of bone loss through periodontal or gum disease was such that the removal of many teeth would *indeed* have been a relatively painless affair.

When it came to extraction of carious teeth, this can have been far from the case. Stories abound of patients suffering agonies in this respect.

Agonising though extraction undoubtedly was, undergoing the filling of a carious tooth can have been scarcely less traumatic. Scrapers were used to remove the decay; the cavity was then dried with a piece of cotton and plugged with foils of lead, silver, tin, gold or platinum, again using hand instruments. A lengthy process demanding strength on the part of the dentist and great endurance by the patient.

The pitfalls inherent in such a technique (and the expense of using the preferred precious metal, gold) led to experimentation with plastic filling material in the early 19th Century. These revived an old idea of amalgams based on silver and mercury, placed in the cavity and welded with a hot plugger. Whilst this was a much speedier and cheaper procedure for the patient, and no doubt easier for the dentist, arguments raged throughout the century about this amalgam's stability and composition. Members of the American Dental Association were actually required to sign a declaration that they would never use it.

When caries had not yet obtained such a strong hold, filing was resorted to, particularly where a cavity had begun adjacent to a sound tooth.

Where conservation of the natural teeth was out of the question, then early dentists showed great ingenuity in providing prosthetic appliances. There was a long tradition of replacement crowns.

Ivory continued to be used for much of the 19th Century for making denture plates or bases. It was bought from a supplier and cut into suitably sized pieces. The anterior teeth were either carved separately from ivory or the crowns of human teeth were used. In either circumstance, the teeth were attached with pins. Human teeth could be obtained from suppliers in matched sets. In theory they came from healthy bodies taken off the battlefields of Europe and hence came to be known as Waterloo teeth. In practice, they emanated from the dissecting rooms, graveyards and mortuaries.

One of the major problems confronting the maker of early false teeth was how to keep them in the mouth. Coiled gold springs replaced the early flat ones which had a tendency to push the lower denture outwards. Partial dentures were originally retained by ligatures.

Then, in the early 19th Century, an important discovery was made, namely that an upper denture would stay up by itself if it fitted the mouth well enough.

However, until well into the 19th Century, impressions can rarely have been good enough to produce the self-supporting denture. In any case, ivory was considered by some to be too heavy to adapt well to the technique. Greater success was to be had with gold. This had first been introduced as a denture base in 1757 in an attempt to get around the problems inherent in using ivory which degraded in the mouth producing a most offensive odour in the process, as did any natural teeth used in combination with it. It is not surprising that fans were so popular at the time.

One contemporary dentist considered ivory dentures needed to be replaced annually in some mouths, no mean expenditure when starting price was usually about 20 guineas.

Although gold denture bases overcame the problem of decaying ivory, the liability to caries of the natural teeth used on them still remained. It was with this frustration in mind that De Chémant, a Frenchman, introduced porcelain as a denture material in the 1790s. Such a denture was fired in one piece, base and teeth, and the gums tinted pink. Sadly they were heavy, fragile, and the glaze tended to crack thus making them porous. They were also noisy in use, sounding like "cracked bells", according to one contemporary.

Clearly, there was no great future for the all-porcelain denture but individual porcelain teeth first appeared in 1807 and by 1850 had more or less taken over from human teeth for use on dentures. They continued to be used well into the 20th Century, only being superseded by acrylic.

The prayers of both dentist and patient were answered in the 1850s by Mr. Goodyear, inventor of vulcanised rubber, patented as vulcanite. This became the most common material used for denture bases from then on for nearly a hundred years. It could be fitted accurately, did not decay and was much cheaper than gold. When these assets were combined with the introduction, of inhalation anaesthesia, the scene was set for the vast expansion in dentistry which was still in progress when our pharmaceutical dentists entered themselves on that on that first Dentists Register of 1879.

### The Origins of 'Dentistry'

Tooth extraction, whether carried out by barbers, specialised toothdrawers or even blacksmiths, has a long history but dentistry proper, embracing restoration and prosthetics, is of relatively recent origin, making its appearance in this country only at the very end of the 17th Century.

References to dentistry in the apprenticeship tax records are exceedingly rare for most of the practitioners of the 18th Century took up dentistry at a mature age, having already trained for another trade and those whose career it was from the start had probably learned it in the family business. By the middle of the 19th Century, it can be estimated that about half the dentists in practice had served an apprenticeship to a full-time dentist or had worked for one for a number of years as an assistant. However, the way was still open, legally, for anyone to set himself up as a dentist, with or without any training, and many did.

So far as is known dentistry began in London, the obvious concentration of money and fashion. Even there demand was not overwhelming and London dentists frequently took advantage of the improved road system of the 18th Century to take the benefit of their skill to the provinces in tours which might last several weeks. Not to be outdone, by the middle of the 18th Century, the provincial towns began to produce their own dentists, who also proceeded to tour the country, taking rooms at inns from which to practise and visiting clients in their own homes by arrangement. These regular visits gradually transformed themselves into branch practices, as dentistry became more technical and the tools of the trade could no longer be carried on a stage coach in a small bag.





College of Dentists and the Odontological Society. At the end of the first year, they had between them nearly 400 members from a dental population of approximately 850. Within the remaining 450 were many dentists who did not join because they lacked confidence in the likely success of the venture or because, quite simply, they were too apathetic, according to their contemporaries. Also in this 450 were the part-time dentists, including the chemists and druggists, who were ineligible for membership because they practised another trade.

The pharmaceutical dentist seems likely to have added dentistry to his repertoire of pharmacy, not the other way round, which puts him in the same category as many others who had not served a dental apprenticeship. This does not necessarily seem to have made for a bad dentist, however, as a number of notable cases show. As for how pharmacists came to take up dentistry, examples could be given of young men encountering toothdrawing during their apprenticeship and going further along the same road when they set up their own businesses. A few abandoned pharmacy altogether for their new profession, joining the reform societies, obtaining the licence in dental surgery and

becoming individual members of the British Dental Association.

Their reasons for becoming involved in dentistry must have been various. It had the attraction of being a para-medical profession without restrictions on practice and for which no lengthy academic training was yet required by law. According to Brown, the socio-economic status of dentists was higher than that of chemists who were not members of the Pharmaceutical Society and, of course, the rewards for the competent were considerable. Chemists and druggists seem to have begun to take on dentistry in some numbers in the 1840s and 50s. Whether this is a simple reflection of their increasing presence or whether it was a determination to keep their options open in the face of professionalisation within pharmacy may be a point to consider.

Whatever the reasons, it is undeniable that there were strong links between the two professions in the 19th Century, links which have been maintained to the present day, albeit of a different kind. We, as pharmaceutical and dental historians, are playing our part in keeping that connection alive.

## Three Offers

The National Library of Medicine, Bethesda, USA has issued two bibliographies. The first is an eleven page booklet prepared by Thomas N. Bonner entitled "Educating Physicians in the 19th Century". Dr. Bonner who is professor of History at Wayne State University, Detroit was a Visiting Scholar at the National Library of Medicine in 1987. "The pages grow out of a comparative study of medical education in Great Britain, France and Germany and the United States . . ." At the suggestion of Dr. John Parascandola, Chief of The History of Medicine Division, the bibliography was prepared primarily to assist scholars working in medical education or related fields at the Library, but may have some uses beyond the NLM. In addition to a foreword the contents include:-

- A selected list of Secondary Books and Articles;
- Contemporary Writing on Medical Education 1800-1914;

- Medical Travel Literature 1800-1914 and an Index.

A larger publication (25 pages) is the bibliography compiled by Peter B. Hirtle and Diane E. Rothenberg and issued in conjunction with an exhibit on "Blacks in Medicine. The Institutional Setting." The exhibit was

prepared by the Library's History of Medicine Division with the co-operation of the Library's Equal Employment Opportunity Committee as a companion activity to the Library's celebration of Black History Month and held during February and May

Another publication is entitled 'American Contributions to the New Age of Dental Research'. It is a well produced 25-page booklet published in conjunction with "A Century of American Dental Research: An Exhibit Commemorating the Fortieth Anniversary of the National Institute of Dental Research" currently on display at the National Library of Medicine.

Single copies of these publications are available, without charge, by writing to:

Chief  
History of Medicine Division  
National Library of Medicine  
8600 Rockville Pike  
Bethesda  
Maryland 20894  
U.S.A.

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## Contents

Chloral Hydrate : Medicine and Poison	Page 2
John Channing - Arabist and Apothecary	Page 4
Pharmacy in the Australian colonies - The British influence	Page 7
Index 1988	Page 8

## Diary Dates 1989

### February 15

Charles H. Gordon, "Pringle's Army Dispensary of 1746 and his relations with the Regimental Surgeons"

### March 15

Foundation Lecture. Details to be announced later

## Books

**Pharmacy in Australia - The National Experience.** Gregory Haines. The Australian Pharmaceutical Publishing Company Ltd., 1988. pp.x + 443.  
ISBN 0 7316 2652.

Australian pharmacy commenced independently in several different colonies which were to become the six states. Initially state pride was important and national identity was consolidated after the two world wars.

In a well researched volume, the author weaves an intriguing story of the problems, the successes and the mistakes of a developing profession. Slowly the English dominated background of Australian pharmacy receded, but pharmacy from 1780 onwards was shop dominated. In England, Jacob Bell had appreciated the importance of history to his calling; few

Australian leaders did and few possessed any clear vision of the future. Nevertheless important men e.g. Shillinglaw, Piper, Forster, Cowley, Wright, etc. made meritorious contributions to a profession that eventually adapted and organised.

Dr. Haines, who is both historian and pharmacist, carefully traces developments including societies in the individual states, the prolonged federal conundrum, retail defence organisations, events of the depression years, armed services pharmacy, educational requirement changes, Australian pharmaceutical literature, wholesale pharmacy and hospital pharmacy up to the present time. Although based mainly on public records, the work does include interesting anecdotal accounts.

The text with its 8 appendices and bibliography is well indexed. The few typographical errors do not detract from a very readable history that should be studied by all would-be pharmaceutical historians and politicians. W.E. Court.

## Correction

It is regretted that an error occurred in the title of Dr Hillam's paper in the September Pharmaceutical Historian. The correct heading is "Pestle and Forceps, the Pharmaceutical Dentist of the 19th Century".

## Obituary

**Henry ("Harry") Burlinson OBE, F R Pharm S, DBA,** suddenly on October 30. Harry Burlinson's wide service to his profession was well known and recognised by his professional colleagues. He was an acknowledged authority on tableting and a dedicated member of the Thomas Kerfoot & Co Ltd board for fifty years. In BSHP his contribution was no less important and his infectious enthusiasm will be missed by all who came into contact with him. His warm friendliness and readiness to share his wide experience will be sadly missed by members of BSHP for he and his wife, Mildred, regularly supported the Spring Conferences, contributing greatly to the happy atmosphere that was so characteristic wherever they were present. For a time he was a valued committee member quietly providing sound advice during its deliberations. His sudden death, on the golf course, was a shock to all who were privileged to know him and increases our sympathy to Mildred in her loss. At a Service of Thanksgiving in Bardsley Parish Church on November 4 the Society was represented by Dr W.E. Court, joint secretary.

1848 1



# Chloral Hydrate: Medicine and Poison?

By M.J. Clarke

When chloral hydrate was introduced to medicine in the latter half of the 19th Century it was welcomed as a new wonder drug. Considering that, as a hypnotic, it provided a relatively safe alternative to opium; and, as a sedative, it could be employed instead of substances such as aconite and hemlock, such a description is understandable. The claim was further justified by the widespread use it soon found. In the first 18 months after introduction around 50 tons were used in England alone.<sup>1</sup> Until the early decades of the 20th Century, and the arrival of the barbiturates in the materia medica, chloral hydrate played an important role in therapeutics. However, it did also feature in the poisoning statistics.

Chloral hydrate was first prepared, in 1832, by Justus Liebig.<sup>2</sup> But, it was several decades before its action as a hypnotic was recognised. Butler has argued that this discovery was initially made by Rudolf Bucheim in 1861, and that Bucheim failed to publish his findings at the time<sup>3</sup> though, the credit for introducing chloral as a hypnotic is usually given to Oscar Liebreich. He published his results in a monograph in 1869.<sup>4</sup> News of the new drug soon spread to England. Later in the year Benjamin Richardson presented Liebreich's findings to the British Association for the Advancement of Science, and stated that either orally or by injection chloral hydrate would lead to sleep. He was not, however, prepared to speculate as to whether the new drug would prove to be a replacement for opium.<sup>5</sup> Also, in August 1869, the British Pharmaceutical Conference was informed of chloral hydrate's properties.<sup>6</sup> The action of the drug was thought to arise from its conversion to chloroform in the bloodstream of the patient. This theory, and its subsequent refutation has been adequately dealt with by previous authors.<sup>1, 3</sup>

In the 1860's, prior to the news from Germany concerning chloral hydrate the main treatments for insomnia were alcohol and opium derivatives such as morphine. These, however, had disadvantages such as causing headaches and constipation. With the opiates there was also the ever present danger of a fatal overdose, accidental or otherwise. Similarly the sedatives that were available in the mid-19th Century were not entirely satisfactory. The most important preparations were opium and prussic acid. Others included aconite, colchicum, hemlock, tobacco, and blood-letting.<sup>7</sup> Potassium bromide was introduced to medicine in 1864, and it had considerable value as a sedative. It was of little use, though, in cases of persistent insomnia. Therefore, the requirement for a comparatively safe hypnotic and sedative was clearly apparent by 1869.

Chloral hydrate was introduced to the *British Pharmacopoeia* in the 1874 additions to the 1867 edition.

A syrup containing 10 grains in a fluid drachm was also included. The dose of chloral hydrate was given as 5-30 grains (325mg-2g).<sup>8</sup> As a hypnotic Liebreich himself originally recommended 2.5g.<sup>6</sup> In Beasley's *Book of Prescriptions* published in 1883, doses as high as 3.9g were suggested. Conditions for which chloral hydrate was to be used included insomnia, nervous disturbance, delirium tremens, chorea, scarlet fever, asthma, whooping-cough and cancer.<sup>9</sup> The first edition of the *British Pharmaceutical Codex*, in 1907, gave the chief use of chloral hydrate as the production of near natural sleep lasting 6-8 hours. Other uses were as a treatment for seasickness, and as an antidote to strychnine.<sup>10</sup> Through the 20th Century the use of chloral hydrate declined as it was, to some degree, replaced by the new synthetic hypnotics such as Veronal and other barbiturates. Currently, some use is still found for chloral hydrate as both a sedative and a hypnotic, especially for children and the elderly.<sup>11</sup> The recommended adult dose now being 0.5-2g at night as a hypnotic, or 250mg three times a day as a sedative.<sup>12</sup>

Despite the widespread welcome for chloral hydrate in the latter 19th Century, problems soon became apparent. It was found its action could be unreliable, some individuals being more affected by 4 grains (260mg) than others were by five times that amount.<sup>13</sup> As well as difficulties in determining a therapeutic dose, the quantity of the drug that might produce toxic symptoms and even death was open to debate. Mann described the toxic action of chloral hydrate as "extremely irregular".<sup>14</sup> While Blyth, in his *Poisons: their Effects and Detection* published in 1884, wrote "it is impossible to state with any exactness the precise quantity of chloral hydrate which may cause death".<sup>15</sup> Toxic symptoms were reported from doses as low as 325mg and 650mg.<sup>13, 15</sup> Liebreich, however, blamed these early aberrations on impurities in the manufacture of chloral hydrate.<sup>17</sup>

In the contemporary toxicology textbooks, cases of fatal poisoning among adults from doses of 1.3g were regularly cited.<sup>14, 15, 16</sup> A woman of seventy died from only 650mg of chloral hydrate in less than ten hours,<sup>14</sup> and a twenty-year-old woman was fatally poisoned by under 2g. Recovery after taking very large doses was not unknown. In 1874 a woman surviving four ounces of syrup of chloral hydrate, containing 20g of the drug itself, was recorded.<sup>18</sup> Colenso, in the *Lancet* in 1894, reported the case of a thirty-four-year-old woman who attempted suicide with an ounce (nearly 30g) of chloral hydrate and survived after suitable medical treatment.<sup>19</sup> The generally accepted fatal dose, however, would be about 10g.<sup>20</sup>

Whether or not a particular dose of chloral hydrate would prove fatal depended on the treatment that was administered. In large doses chloral hydrate leads to a coma, shallow breathing, a drop in body temperature, and finally death from respiratory or heart failure.<sup>21</sup> In the 19th Century, therefore, the patient was treated with the available stimuli, both physical and medicinal. Hospital treatment of an attempted suicide in 1876 included shampooing and electricity. These proved successful with the patient being aroused six hours

after taking the chloral hydrate.<sup>22</sup> Stimulants such as strychnine, alcohol, hot coffee and picrotoxin along with the use of external warmth to prevent the fall in body temperature were also recommended.<sup>14, 15, 16</sup>

Artificial respiration, with oxygen and carbon dioxide if necessary, was subsequently proposed.<sup>21, 23</sup>

Another of the problems with chloral hydrate was the danger that its prolonged use could lead to addiction. Chronic use of the drug has been found to produce tolerance and a physical dependence similar to that to alcohol.<sup>24</sup> However, since habituation was one of the recognised drawbacks of the opiates this may not have reflected too severely on the new substance. In 1874 Farquharson described chloral-eating as a common problem.<sup>18</sup> By the 1880s it was said "an enormous number of people habitually take chloral hydrate".<sup>15</sup> Such addiction usually resulted from the continued use of chloral hydrate in conditions such as chronic insomnia and neuralgia. With the arrival of the barbiturates as a new therapeutic instrument the prolonged use of chloral hydrate declined, and with it the incidence of addiction.<sup>25, 26</sup>

During the 1870s some critics blamed the spread of the chloral habit on the "reckless way" it was sold by chemists.<sup>27</sup> for the first few years of its availability and use there were no legal restrictions on the sale of the drug. It was not until late 1877 that it was added to the Poisons Schedule of the 1868 Pharmacy Act. The *London Gazette*, December 14, 1877, announced that chloral hydrate was to be placed in Part II of that Schedule.<sup>28</sup> This meant that the preparation could only be sold by registered persons and labelled as a poison.<sup>29</sup> Such control did not entirely satisfy all those inside and outside pharmacy. The loophole of the 1868 Act that permitted the sale of patent medicines to continue unrestricted could also be applied to chloral hydrate. Thus, anyone was legally entitled to sell the substance providing it carried the necessary patent medicine stamp.<sup>30</sup> While its classification as a Part II poison, rather than in the more stringently controlled Part I category, led to criticisms that the controls were "far from adequate".<sup>31</sup> To a limited extent very strict controls were placed on chloral hydrate during the First World War. An Army Council Order of May 11 1916 made the drug, along with others such as opium, cocaine, Indian hemp and veronal; available on prescription only, when it was to be supplied to members of the armed forces. However, when the DORA 40B regulation extended the requirement for a prescription to the general public with regard to cocaine; chloral hydrate and the other drugs were not included.<sup>32</sup> The Poisons List that was drawn up after the 1933 Pharmacy Act classified chloral hydrate for sale by chemists only, but did not restrict it to supply by prescription only.<sup>33</sup>

The records of poisoning by chloral hydrate in England and Wales show accidental deaths to have been considerably more frequent than suicidal deaths. Table 1 shows the number of fatalities from chloral hydrate poisoning by decades, as given in the Annual Reports of the Registrar General. The figures for opiates are given for comparative purposes.

**TABLE 1**  
**Chloral hydrate and opiate poisoning deaths**  
**England and Wales**

YEARS	Chloral Hydrate				Opiates			
	accident		suicide		accident		suicide	
	M	F	M	F	M	F	M	F
1870-1879	51	15	9	2	447	344	200	102
1880-1889	68	30	15	4	570	407	306	138
1890-1899	78	19	15	4	614	446	449	224
1900-1909	54	18	7	1	498	243	469	185
1910-1919	18	6	1	2	236	137	219	85
1920-1929	13	0	3	3	-	-	-	-
1930-1939	12	7	9	8	-	-	-	-
1940-1949	15	10	5	6	-	-	-	-

(Following the Dangerous Drugs Acts of the 1920s the opiates were so strictly controlled that they are of little use as a comparison)

The first accidental and suicidal poisonings by chloral hydrate in the Registrar General reports are in 1871. There is only one homicide by the drug listed, and that was in 1889. Earles has argued that as the dangers of chloral hydrate became apparent so the number of fatalities decreased,<sup>1</sup> and this could have been the case for accidental deaths. The legislative restriction on the sale of the drug from late 1877 will also have had some effect. Table 1, though, shows that there was not a dramatic decline in the number of such deaths until the early 20th Century, possibly reflecting the shift in usage from chloral hydrate to the barbiturates. However, with regard to deliberate poisoning, and as has been shown in the case of the opiates, the compulsory labelling of a substance as "poison" may have served to attract the potential suicide.<sup>34</sup> Thus, despite the fact that chloral hydrate is accepted to have been in widespread use therapeutically by the early 1870s, the number of suicides reported by the Registrar General prior to 1878 was only five. Whereas, in 1878 and 1879, a further six cases were given.

However, perhaps as a result of the relatively large quantities needed and its unpleasant taste, chloral hydrate did not become especially common as a means of suicide. Other factors that may have influenced the incidence of suicide with the drug are the wide range of tolerance to chloral hydrate, and the fact that large doses have an irritant effect which can induce vomiting.<sup>35</sup> It is of interest, though, that chloral hydrate did seem to have a particular popularity within the medical and pharmaceutical professions as a method of suicide. In the *Pharmaceutical Journal* and *Chemist and Druggist* there are 28 suicides involving chloral hydrate between 1870 and 1940, compared to 83 in the Registrar General's reports. Of the Journal's reports eleven of the suicides worked in the medical profession, and four were pharmacists or in similar capacities. It is possible, though, that the journals in question were biased in favour of these professions in their reporting. However, for the period 1894-1914 when the correlation between the Journal figures and those of the Registrar

General are most accurate (13 out of 23 cases) the proportion is still apparent. In these years 30% of the Journal cases were a class of medical practitioner, and 15% were involved in pharmacy.<sup>36, 37, 38, 39, 40</sup>

In conclusion, looking at the history of chloral hydrates as a whole, it was indeed a sensational medicine at the time of its introduction. It provided a relatively safe alternative to preparations such as the opiates, and found wide use as a hypnotic. The problems of poisoning and chronic use that went along with opium and morphine did arise for chloral hydrate, although to a lesser degree. As a means of suicide it found a limited popularity, particularly among those with special access to large quantities to the substance or knowledge of its toxic effects.

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# John Channing: Arabist and Apothecary

By J G L Burnby

John Nichols in his *Literary Anecdotes* noted that in 1777 the library of "The very learned Editor of 'Rhazes de Variolis' (1767) Mr John Channing, apothecary of Essex Street" had been sold.<sup>1</sup> This was the only clue we possessed that the remarkable translator of one of the classic Arabic texts had been an apothecary, a piece of information that many begged leave to doubt.

After the Dark Ages had settled on western Europe, the Arabs became the trustees of the Greco-Roman heritage, and thus the re-discovery of Greek medicine had to be made via translations from Arabic into Latin. With the dawn of the Renaissance this 'arabised medicine' came to be derided, and an increasing number of original Greek medical manuscripts were translated directly into Latin by competent scholars. Two centuries later there was a revival of interest in Arabic texts and the language particularly so when scholars such as the botanist-apothecary James Petiver were receiving dried plants with the Arabic names attached.<sup>2</sup> Jezreel Jones, clerk to the Royal Society, who lived in Barbary for several years and sent back well executed paintings of caterpillars, butterflies, melons, grapes and cucumbers which he had seen in Tetuan and Tangier, was an excellent Arabic scholar.<sup>3</sup> In 1766 John Channing published the Arabic text of Rhazes' *Treatise on small-pox and measles*, (Latinised to *Liber de Variolis et Morbillis*) alongside his own Latin translation. Rhazes had been an eminent Persian physician born about 910 A.D. in the city of Ray near Teheran. There he studied philosophy, physics and chemistry, but his interest in medicine seems to have been first aroused by an old apothecary when he visited Baghdad. He rose to become chief physician at the famous Motazidi Hospital but spent most of his life in Persia. His numerous works were written in Arabic which was the scientific language of Islam. Although a follower of Galen, he was by no means a blind admirer even writing a paper entitled, "Doubts concerning Galen". His greatest claim to fame in the western world is that he gave the first exact description of smallpox, and furthermore, differentiated it from measles.<sup>4</sup>

John Channing was a man about whom little was known. His will was proved on December 8th, 1775 and had been made some six months earlier on May 26th.<sup>5</sup> He had written it in his own hand and began, "I, John Channing, citizen and apothecary of London . . ." and then instructed his executor that should he die in or near London then he was to be buried in the Church of Harrow-on-the-Hill, Middlesex, "near my father and mother. . . otherwise on the north side of the churchyard of the parish where I dye. If I dye at Oxford let me be laid in the same grave with my dear and faithful wife who is buried in Christ Church Cathedral." Funeral expenses were not to exceed £30.

He was buried at Harrow on November 25th, 1775.



the entry being "Buried. Mr John Channon of St Clement Danes, London." His parents interments are also recorded, November 15th, 1775, John Channing of St. Clement Danes" and "December 21st, 1705, Elizabeth Channing wife of John of the parish of St. Clement Danes, apothecary." The reason for their burials at Harrow is unknown, possibly others of Elizabeth's family lived there but none of her maiden name, Erle, has been found in the parish registers. It is tempting to think that either the translator (or his son) was educated at Harrow School as was his near contemporary the Royal Apothecary, Daniel Graham (1694-1778) but no Channings appear in the school lists.<sup>6</sup>

John Channing the Arabist's father, the son of yet another John, a clothier of Chard, Somerset, had been bound to Joseph Chapman, citizen and apothecary, for eight years on August 5th, 1684 and freed on August 2nd, 1692.<sup>7</sup> By 1705 he was successful enough to draw down upon himself the ire of those physicians who supported the dispensaries of the London College of Physicians. The anonymous writer of a *A Short Answer*. . . made the following accusation, "Dr Gibson Prescrib'd a Purging Bolus for Mr Matthews the Pewterer facing to Temple-Bar and the Bill was carried to Mr Matthews Neighbour, Mr Channel the Apothecary, to make it up, who pretended to do so, and gave the Bolus to Mr. Matthews at the time appointed. Mr. Matthews had no Stool that day nor the next, nor any griping or motion towards it. Whereupon Dr. Gibson suspecting some trick in it, got the same Prescription made up at the College, and gave it Mr. Matthews on the third day, who then had Sixteen Stools with it. And all the reason that could be given for this, was, that Mr Channel would have had Mr. Matthews to have sent for Dr. Cole, but Mr. Matthews would send for Dr. Gibson whom therefore Channel would slur for reasons well known to himself and his Brethren."<sup>8</sup>

He was well thought of by the Society of Apothecaries, being called to the livery in June 1712 and sitting on the special committee on ordinances the following year.<sup>9</sup> In the chapel of Lincoln's Inn on November 12, 1702, he entered upon matrimony, the register recording that, "John Channing from without Temple Bar of ye parish of St. Clements Danes, apothecary, and Elizabeth Erle of ye parish of St. Paul Covent Garden" were married by Archdeacon Boucher. It is probable that their son John, the future Arabist, was born the following year but no baptismal record has been found.<sup>10</sup> The only entry found in the parish register of St. Clement Dane's is, "Buried. December 8th, 1704, Robert Channing (sic) an apothecary's child." Within a year the children's mother was taken to Harrow for burial.

The lack of baptismal records are a strong indication that John Channing was a non-conformist as were many of the Channings in his native Somerset, an idea which seems to be confirmed by his second marriage. It is not known when he married again nor whom beyond the fact that she too was called Elizabeth. Possibly she had hailed from Hampshire as

her husband's will relates that £150 had been invested in her name in an estate at Buriton in that county. John's will was drawn up on September 11th, 1724, from which we learn that his wife and his son John were made his executors, and that he had three other children, Wingate and Elizabeth who were not yet 15, and Robert who was still a minor but had already started an apprenticeship.<sup>11</sup>

The first two children had been baptised at New Court Carey Street Independent Chapel on February 5th, 1721, and June 4th, 1722, but they were probably not infant baptisms.<sup>12</sup> The eldest son had been bound to his father on August 5th, 1718, and so it is not surprising that he was to receive "all my books on Physick, Mathematicks and Musick", "the furniture of the shops, drugs, medicines and utensils" as well as the £10 of laboratory stock in the Apothecaries' Society. He was also bequeathed, "my freehold messuage where I dwell which I purchased of Jane Edwards", whilst his step-mother received the other freehold messuage which was in the Strand.

The will was not proved until March 1726 and the young apothecary gained his freedom of the Society in the following September. In 1725 even before John Channing junior had completed his apprenticeship the shop was subjected to a visitation from the Censors of the College when the medicines were pronounced to be "Very good". The practice was probably being run by Joseph Chapman the younger who in February 1710 had been made free of the Society, the minutes relating that he was "the son of Joseph Chapman, citizen and apothecary, who had served John Channing divers years."<sup>13</sup> The young Channing's own first apprentice was Edward son of Edward Cross of Wisbech who was bound to him in 1732 for which he received a premium of £105.<sup>14</sup> The first list of the members of the Society to give addresses, that of 1738, shows John Channing to be at Temple Bar so it is almost certain that he had continued his father's shop, but by 1747 the members' list places him in Essex Street. The rates books for St. Clement Danes for that year note that he had taken over premises which previously had been in the hands of Francis Loggin Esq.

In February 1745 he had taken another apprentice, a "John Channing son of Robert of St. Leonard, Shoreditch, cheesemonger", probably his nephew.<sup>15</sup> He like Edward Cross did not take up the freedom of the Apothecaries' Society. Their apprentice-master was elected to the Court of Assistants in 1763 and then rose to become Master in 1771.

From his will we realise that he had been married but of his wife we know little except for her tragic death. It is written in *Jackson's Oxford Journal* of October 1st, 1768 that, "Yesterday about Noon a most unfortunate Accident happened near the Watering Place at Sandford about three miles from this City, where a Chariot was over-turned by the Horses taking fright. . . whereby Mrs Channing, wife of Mr Channing, an eminent Apothecary in Essex Street in the Strand unhappily lost her Life." Mr Elizabeth Channing of St. Clement Dane's, London was buried in Christ Church Cathedral on October 5th.

John and Elizabeth appear to have had but the one child, John, born in 1746 when his father was about 43. On January 14th, 1764, aged 17, he matriculated at Wadham College, Oxford, when he was reported as being the "son of John of Essex Street, London, gentleman". He became B.A. in 1767 and M.A. in 1770 and in his father's will of 1775 is described as, "my dear and only son, now student of Christ Church, Oxford." Except for £5 to Mary Bradford, widow of Bradford, Dorset, and £30 'to the poor, not Idle but Industrious poor', John was bequeathed the whole of his fathers' estate.

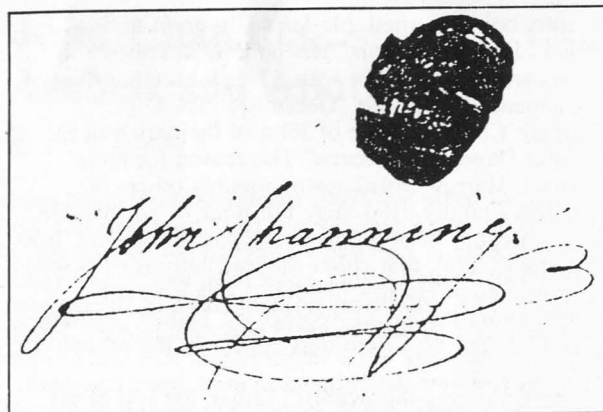
For some years before his death the apothecary had been 'easing-off'. When the Censors made their visit of 1772 the shop was termed that of Channing & Wilmot, and after the senior partner's death, the apprenticeship records show that Jonn Wilmot apothecary of Essex Street in the Strand, took two apprentices, Richard Wimburn and Robert Woody, in 1780 and 1783 respectively.

Posthumously in 1778 Oxford University Press published John Channing's Latin translation of the surgical section of Albucasis' text with the original Arabic. Albucasis was born in Andalusia near Cordoba in 1013 and was the author of a great medico-chirurgical treatise called the *Collection* or *Al Tasrif*. When Channing's interest in Arabic started we have no idea. It is known that he was in correspondence with Michael Casiri, and cataloguer of Spanish Arabic Manuscripts, in 1766 the year in which his famous Arabic Text and Latin translation of Rhazes tract was published.<sup>16</sup> His signature is also to be seen on the fly leaf of a copy of Haly filius *Liber totius medicinae* printed in 1523.<sup>17</sup> If there are any lingering doubts as to whether the translator and the apothecary are one and the same man, then the two signatures, the one in the book and the other on the apothecary's will should be compared.

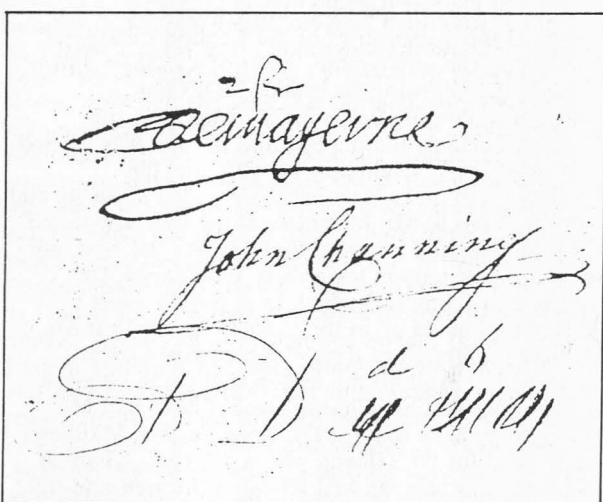
The question which remains unresolved, is how did John Channing learn Arabic? He could have been self-taught, a glance at the catalogues of the British Library show that books were published on Arabic characters, the Arabic alphabet, the language and proverbs as early as 1592, 1595, 1614 and 1649. In 1657 was published the 'Polyglot Bible' which was written in Syriac, Ethiopic and Arabic amongst other languages all with Latin translations. On the other hand he could have gone travelling perhaps to North Africa or the Middle East during the years 1726 - 1732 leaving the shop and practice in the care of Joseph Chapman and his apprentice.<sup>18</sup> He could even have been a merchant in the drug trade like his great predecessor Constantine the African translator of many Arabic texts at Salerno and Monte Cassino.

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3. B.L. Sloane MSS. MS 4003, dated June - September 1701. On January 31, 1701 Petiver wrote to Robert Uvedale that "Israel Jones goes to Barbary this week". (SI.MS.3334 f11)
4. "Rhazes: the original portrayer of smallpox", Abbas M. Behbehani. *JAMA*, 1984, 252, 3156-9.
5. P.R.O., P.C.C., Prob.11 1014 f.462.



The signature from the will of the Citizen and Apothecary of London.



The signature from the book by Haly filius Abbas.

6. It is interesting to note that not only is Daniel Graham buried in Harrow Church but also his father, Thomas, Royal Apothecary, Apothecary-General and a governor of Harrow School.
7. Guildhall Lib., MS 8200/3, ff.139, 347. Joseph the son of John Chapman of Chard, mercer, had been bound to Jonathen Leigh on 7 Sept. 1763. He seems to have died soon after Channing's apprenticeship finished as his name does not appear on the list of 1693. He is likely to have been John's cousin as in his will Channing refers to his Aunt Mary Chapman and his late Uncle John Chapman of Chard.
8. "A short answer to a late book entitled Tentamen medicinale. . .", London, 1705, p.13. I am indebted to the late Dr. T.D. Whittet for drawing this to my attention. The name Channing is not infrequently distorted to 'Channell', 'Channon' and 'Canning'.
9. MS. 8200/4, ff. 347, 392. He also subscribed to the maintenance of the Physic Garden in 1703, and had £10 in the Society's laboratory stock.
10. The parish registers of St. Clement Dane's, St. Bride's, The Temple and St. Dunstan-in-the-West have searched without success.
11. P.R.O., P.C.C., Prob.11 607, f.43.
12. P.R.O., RG4 4228. Most of the baptisms appear to be those of adults. In neither case was the parentage given although Elizabeth was described as "of Temple Bar", and Wingate "of Fetter Lane".
13. MS. 8200/4, f106
14. PRO (Kew), I.R./1/13, f.66.
15. MS 8200/6, f.207
16. I am indebted to Dr. E. Savage-Smith for this information.
17. This copy of Haly Abbas *Liber totius medicinae* is in the Wellcome Library and I am indebted to Miss Brenda Sutton for the photocopy of the fly-leaf, as I am to Dr Savage-Smith for drawing my attention to it in the first place.
18. MS 8200/4 f.435. In August 1715 Joseph Chapman took as his apprentice his relation Thomas Chapman son of John late of Chard, mercer, deceased.

# Pharmacy in the Australian Colonies – the British Influence\*

by Alistair Lloyd

Although Australia was first settled as a penal colony 200 years ago. European style pharmacy did not start until considerably later, although a form of pharmacy was practised by individuals in various ways as soon as they arrived. Aboriginal Australians had a medical system using drugs of botanical and animal origin, but it was ignored by the white man.

Only from about 1820 was pharmacy, as we perceive it, practised by individual independent practitioners.

It must be realised that each of the colonies was quite separate in those days, with no land linkages, but with strong and regular direct contact, albeit slow, with the Colonial Office in England. There were no inter-colonial railways or roads. Each colony had its own Governor, who set about producing an establishment firmly along British lines, law and customs. Even as the colonies grew and land communications developed, local conditions remained the significant determinant, as they are to a certain extent even today. Under the Australian federal system of government, State Governments have sovereign powers except for those which have been vested in the Commonwealth Government by the Australian constitution.

This has led pharmacists to the situation whereby they must deal with three levels of government – the first being municipal government which provides local services, then the State and finally the Commonwealth. The difference between State and Commonwealth jurisdiction means that pharmacists look to State Governments for poison control laws, and the laws generally governing the practice of pharmacy. The Commonwealth, however, also affects pharmacy to the extent that the Commonwealth has jurisdiction in such matters as standards of medicines, excise and customs and most particularly, the provision of the Pharmaceutical Benefits Scheme. Australian pharmacy developed in parallel with the development of our federal system.

With that background, I would like to describe the development of pharmacy practice and organisations in Australia after the beginnings of the professional societies in each colony, and just as the colonial legislative councils began to provide Pharmacy Acts to control the practice of pharmacy. In doing so I will focus on the contribution of two men of immense influence who were at the centre of pharmacy thought, development and emerging organisation. Neither were pharmacists, but their contribution was crucial to the development of sound professional structure and practice we now have in Australia today.

They were my predecessors – Harry Shillinglaw and Charles Leslie Butchers who among their other duties were Secretary of the Pharmaceutical Society of Victoria and Registrar of the Pharmacy Board of Victoria. I am honoured to follow them, in these two offices. Shillinglaw was Registrar of the Pharmacy

Board of Victoria from its inception in 1877, and was appointed Secretary of the Pharmaceutical Society of Victoria a few months later. When he resigned in 1912, he was succeeded by C L Butchers who then remained in those positions until he died in 1941, a span of service of those two men of 54 years.

But the particular post they both held, I wish to suggest was bound to perpetuate British influence on Australian pharmacy, was their position as Editor of the *'Australasian Journal of Pharmacy'* or in an earlier guise, the *'Australian Supplement to the Chemist and Druggist'*. For the purpose of this paper I shall refer to these as 'the journal'.

When Shillinglaw was appointed Secretary of the Victorian Society in 1878, it was decided to re-establish the earlier journal which had become defunct about 1859, two years after the Society was founded. However, it was found uneconomic to publish a new journal along the lines of the old one and an arrangement was made with Mr O V Morgan, one of the proprietors of the *Chemist and Druggist* (London), to supply that publication to members of the Society, and to issue a colonial supplement with it. Shillinglaw was appointed sub-editor of that supplement, but soon became Editor.

The *'Australasian Chemist and Druggist'* commenced in 1878 and was distributed as a supplement to the British *'Chemist and Druggist'* until it was decided to terminate the agreement in 1886 and to issue a new and separate publication to be called the *'Australasian Journal of Pharmacy'*. This new Journal was managed and edited entirely by Shillinglaw and eventually became owned by him, when, after being successfully sued for libel for something he had written, he felt he could not pass on the financial burden of that indiscretion to the young Society. When he resigned, the Society purchased the Journal from him and Butchers continued with its editorship. Although it was many years before the *'Australasian Journal of Pharmacy'* became the official journal of all pharmacy organisations of Australia, as it eventually did in 1920, in Butcher's time, it was nevertheless highly influential throughout its existence.

In the years after the Victorian Society severed its connection with the *'Chemist and Druggist'*, the publication nevertheless continued to be distributed in Australia, particularly to members of the profession in New South Wales, and for those years both publications existed side by side. Although the Editor of the *'Chemist and Druggist'*, W G Piper, was a highly influential commentator on pharmacy affairs in Australia, and was involved in the organisation of the Australian Pharmaceutical Conferences, and Pharmaceutical Defence League, he had no other position of influence. However, Shillinglaw and later

\* Part 1 of an abstract from a paper given at the B.P. Conference, History Session, Aberdeen, September 16.



Butchers, as Editor of an influential journal, were also Secretary (the keeper of the secrets) and Registrar of the oldest colonial Pharmaceutical Society and Pharmacy Board, the most influential organisations in Australian pharmaceutical affairs of the time.

As Editors, they were responsible for receiving early issues of overseas journals, particularly the *Pharmacy Journal* and the *'Chemist and Druggist'*, as they arrived in the country, culling them for articles suitable for their own journal and commenting on them all: and then being able to take any appropriate action if they thought it necessary

In 1877, the first Pharmacy Board in Victoria was appointed. Although the British model of giving the responsibility of registering pharmacists and controlling poisons direct to the Pharmaceutical Society, was not followed in Victoria or the other eastern colonies, it was however, adopted in Western Australia, and New Zealand, where it continues to this day. At its second meeting the Board decided to appoint a Registrar and subsequently Harry William Shillinglaw was appointed. A month or two after that appointment, he also accepted the post of Honorary Secretary of the Pharmaceutical Society of Victoria.

How his position of editorship, in association with his other official positions, influenced events, is outlined in an account Shillinglaw was writing before his death, after his resignation. He quotes how he observed the decision of the Court of Appeal in 1880, of the case of the *Pharmaceutical Society of Great Britain v the London and Provincial Supply Association Limited* which demonstrates that the British 1878 Pharmacy Act did not prevent limited companies from using the title 'chemist'. Shillinglaw reports he noted this and, understanding its significance, bided his time.

As might be imagined, the new Victorian Pharmacy Act of 1876 contained several machinery deficiencies, and by 1885 these were brought together as an amending Act to correct them. Shillinglaw took steps to ensure that this Act also included an amendment which defined 'person' in such a way that clearly excluded corporations from practising pharmacy. Thus came about a most important part of pharmacy legislation in Australia as a result of Shillinglaw observing British experience and being in the position of being able to act effectively on it. This has had a profound effect on pharmacy practice in Australia which continues to this day, despite many attempts over the years to have it altered. In the opinion of most Australian pharmacists, and as yet most governments,

this provision has benefited the public of Australia.

Pharmacy Acts in the other colonies followed - Queensland in 1884, South Australia in 1891, Western Australia in 1894, New South Wales in 1897, and Tasmania not until 1898, although the Pharmaceutical Society of Tasmania had had responsibility for examining and qualifying dispensers before then. By the time these Acts were being debated, Shillinglaw was a most experienced pharmacy administrator and pharmacists in the other colonies sought his and the Victorian Board's and Society's advice when having their own legislation drawn up, and when the development of their Societies were being considered. His regular contacts with Great Britain through journals and correspondence, ensured that his advice continued to be shaped by events here.

(To be concluded)

## Index 1988

Note: Year is followed by Volume No and Page. Each article is numbered to facilitate reference under Author index.

### Apothecaries

- 1 The Maynard family. John Steane. 1988. 1-2

### Biographies

- 2 John Nicholson 1685. The First Chemist and Druggist. F.H. Rawlings. 1988. 1-7
- 3 Thomas N.R. Morson. A.F.P. Morson. 1988. 3-2

### Medicine

- 4 Chloral Hydrate. Medicine and Poison. M.J. Clarke. 1988. 4-2
- 5 300 years of Cod Liver Oil. Stuart Reed. 1988. 2-6.

### Miscellaneous

- 6 Pestle and Forceps. The Pharmaceutical Dentist. C. Hillam. 1988. 3-5
- 7 Reckitt & Colman Pharmaceutical Division. R.S. Harris. 1988. 2-5
- 8 The Linnean Society. Two Bristol Links. F.H. Rawlings. 1988. 1-8
- 9 An Arabist. J.G.L. Burnby 1988. 4-4

### Pharmaceutical Society

- 10 Hull Pharmacists Association. Roger W. Odd 1988. Part 1. 2-7. Part 2. 3-4
- 11 "My Dear Mr Bell". The Background. M.P. Earles. 1988. 2-2.

### Pharmacy

- 12 The Professionalisation of British Pharmacy. J.G.L. Burnby. 1988. 2-3
- 13 Pharmacy in the Australian Colonies. The British influence. Alastair Lloyd. 1988. 4-7

### Author Index

Burnby, J.G.L.	9, 12
Clarke, M.J.	4
Earles, M.P.	10
Harris, R.S.	7
Hillam, C.	6
Lloyd, A.	13
Morson, A.F.P.	3
Odd, R.W.	9
Rawlings, F.H.	2,8
Reed, S.	5
Steane, J.	1

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